B2267

University of Wisconsin-Extension Cooperative Extension

**Wisconsin Safe Food Preservation Series**

# Homemade Pickles & Relishes





**Barbara H. Ingham**

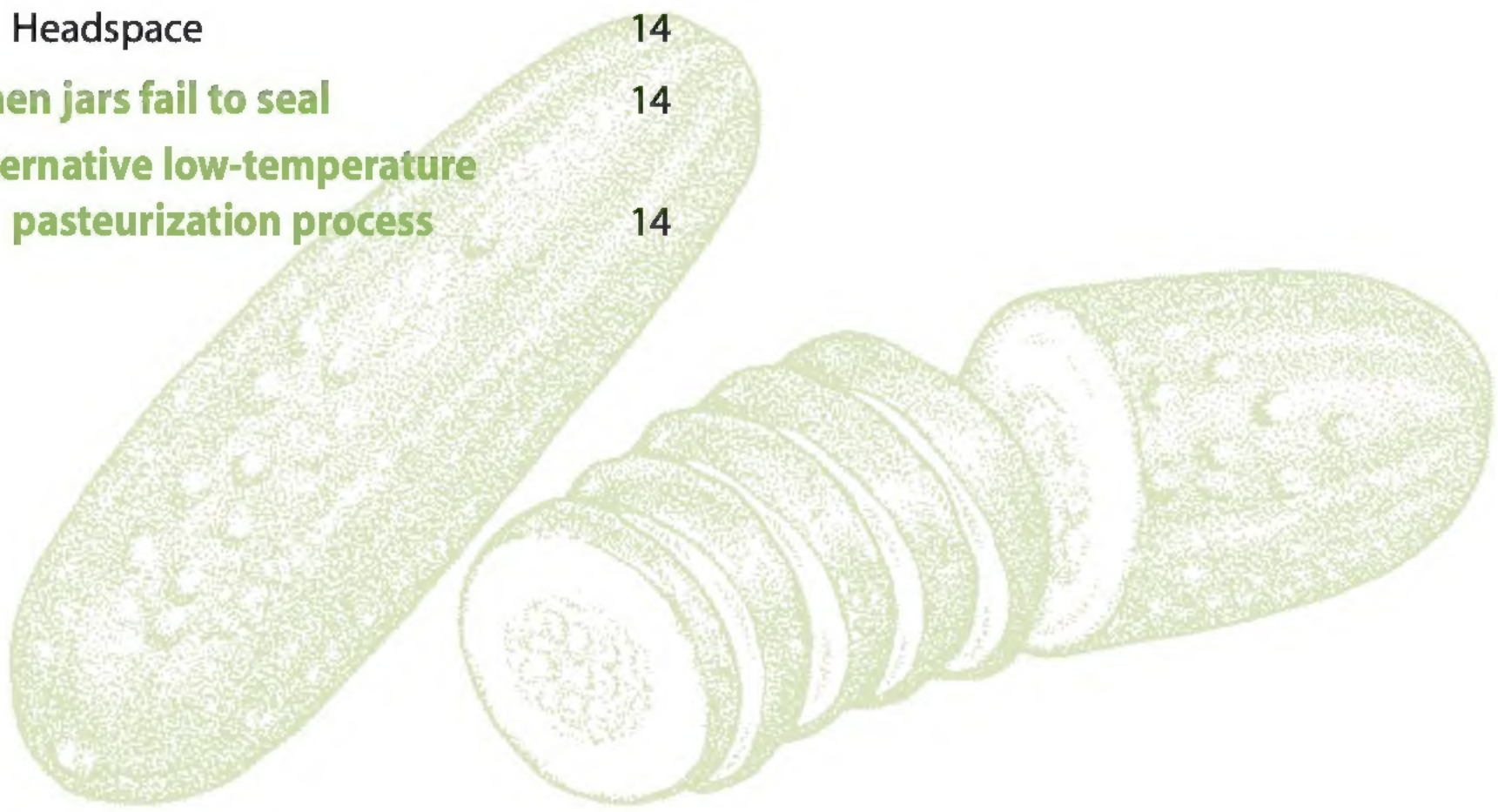
# Contents


Fermented pickles 1
Fresh pack or quick process pickles 2
Refrigerator pickles 2
Freezer pickles 2
Use high quality ingredients 3
- Vegetables and fruits 3
- Start with the right ingredients 4
- Water 5
- Vinegar 5
- Salt 6
- Use the right amount of salt 7
- Weigh salt for best accuracy 7

Sugar 8
Spices, garlic and dill 8
Grape leaves 9
Firming agents 9
Equipment for fermented or crock pickles 10
Equipment for all pickles 11
Processing in a boiling water canner 12
- Sterilizing jars 12
- Headspace 14

When jars fail to seal 14
Alternative low-temperature pasteurization process 14
Pickle recipes 15
- **Fermented or crock pickles** 15
  - Brines for fermented pickles 17
- **Fermented pickle recipe** 18
- **Fresh pack and quick process recipes** 20
- **Vegetable pickle recipes** 28
- **Fruit pickle recipes** 41
- **Relish recipes** 46
- **Refrigerator pickle recipes** 52
- **Freezer pickle recipes** 54
- **Family favorite pickle recipes** 57

Wisconsin Safe Food Preservation Series publications 59
Web sites 59
Recipe index 60

University of Wisconsin-Extension Cooperative Extension

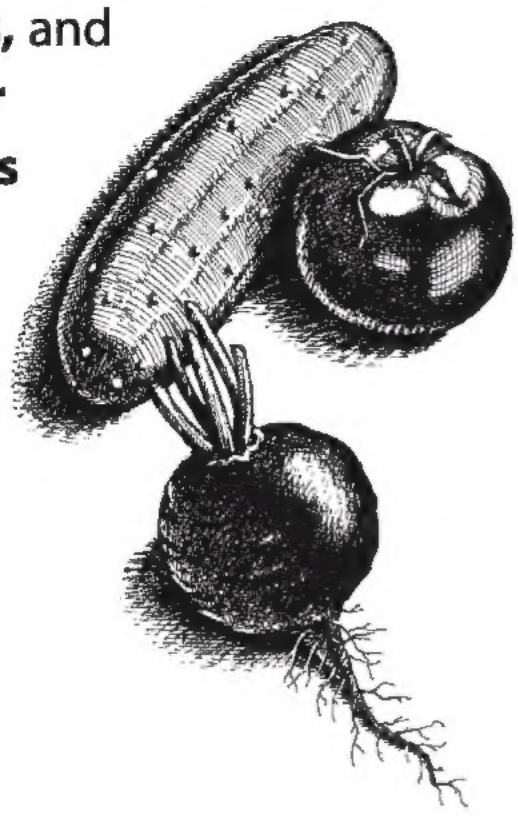
**When your garden yields a surplus of fresh produce,** or when the farm stand has prices too low to resist, then it's time to make pickles. Follow the research-tested recipes in this bulletin for safe and easy preparation and preservation of your garden bounty.

Pickling is one of the oldest known methods of preserving foods, and a long-time favorite among home canners. While cucumbers are the most popular pickled product, many other vegetables and fruits can be successfully pickled at home.

To the inexperienced person, pickling may seem to be a complex procedure, laden with mysterious steps and unknown outcomes. In fact, you can make safe, high quality pickles if you remember two basic rules:

1. Use high quality ingredients.
2. Follow tested recipes precisely.

The recipes in this bulletin tell you how to make two different types of pickles for canning: **fermented or crock pickles,** and **fresh pack or quick process pickles and relishes**.



Both types of pickles are preserved by acid. The acid may be:

- **acetic acid** from commercial vinegar (5 percent acetic acid) — used in fresh pack or quick process pickles and relishes — or
- **lactic acid** produced by bacteria in fermented or crock pickles.

## Fermented pickles

Fermented pickles — also called crock pickles — are produced by curing cucumbers or other vegetables in a salt brine for several weeks.

During this treatment, salt-tolerant bacteria convert carbohydrates (sugars) in the vegetables into lactic acid by a process known as fermentation. Lactic acid preserves the pickles and gives them their characteristic tangy flavor.

The salt concentration is very important in this process, and is necessary to encourage growth of the right types of bacteria. For this reason, you will want to use the **exact amount of salt stated in each recipe**.

**Cucumbers fermented in salt brine without added herbs or spices** are called **salt stock**. They may be stored in the brine for several months and then made into sour or sweet pickles.

**Cucumbers fermented in salt brine with added dill, spices and garlic** make **genuine dill pickles**. When completely cured, the cucumber

flesh becomes a transparent olive-green. The cured dills are packed in canning jars, covered with boiling hot brine, and heat processed in a boiling water canner for a product that can be enjoyed all year long.

## Fresh pack or quick process pickles

Many popular kinds of pickles are known as **fresh pack or quick process pickles**. Fresh pack pickles are not fermented. Instead, a hot solution of vinegar and salt (and sometimes sugar) is prepared and poured over the pickles before they are processed. Pickles prepared in this way include fresh pack dill pickles, bread-and-butter pickles, and beet pickles.

Also in this category are:

- **Fruit pickles** prepared from fruits such as peaches, pears or apples simmered in a spicy, sweet-sour syrup.
- **Relishes** prepared from chopped vegetables or fruits simmered in vinegar solutions.

After jars are filled, fresh pack pickles are processed in a boiling water canner. Such pickles are preserved by the acetic acid in the added vinegar, and the heat processing. Follow tested recipes precisely.

**Use the exact amount of vinegar stated in each recipe, or an unsafe product may result.** Salt or sugar can be decreased in fresh pack pickles with safe results, but pickles may lack some characteristic flavor and texture.

## Refrigerator pickles

Some pickle recipes that call for enough vinegar (5 percent acetic acid) can be stored safely in the refrigerator at 40° F or colder for up to 1 month.

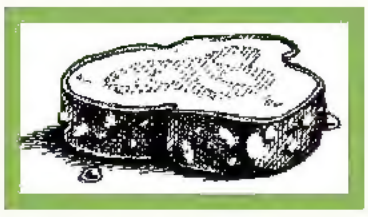
These pickles do not require heat processing, but they must be kept refrigerated. Do not decrease the amount of vinegar in these recipes; an unsafe product may result.

## Freezer pickles

If you like to make sweet pickles — and want to make them quickly and in the coolest possible way — try making freezer pickles.

For some reason, cucumber and other vegetable slices packed in vinegar and sugar remain crisp when frozen. Freezer pickles taste best if chilled. **Once thawed, these pickles must be kept refrigerated for use within 2 weeks.**

## You can make many types of delicious pickles.



**Fermented pickles are produced by fermenting cucumbers or other vegetables in a salt brine for several weeks. During fermentation or curing, bacteria convert sugars in the vegetables into lactic acid, which preserves the pickles and gives them their characteristic tangy flavor.**

**Fresh pack or quick process pickles are quick and easy to prepare. Vegetables or fruits are packed in jars, covered with a hot vinegar solution, and immediately heat processed. Also in this category are pickles prepared from fruits such as peaches, pears or apples simmered in a spicy, sweet-sour syrup, packaged and processed. Relishes are prepared from chopped vegetables or fruits simmered in a vinegar solution before being heat processed.**

**Refrigerator or freezer pickles can be prepared without heat processing. Cucumbers and other vegetables are packed in a strong vinegar and sugar solution for storage in the refrigerator or freezer.**

# Use high quality ingredients

## Vegetables and fruits

Select fresh, firm, high quality vegetables and fruits for pickling. Discard bruised, moldy or insect-damaged produce.

Grow or purchase varieties of cucumbers that are designed for pickling. Pickling cucumbers suited for Wisconsin include Alibi, Bush Pickle, Calypso, Diamante, Eureka, Fancipak, Northern Pickling, and Homemade Pickles. Using varieties of cucumbers designed for pickling will yield a high quality product.

Although pickling cucumbers make good gherkin pickles at 1 to 2 inches, pickles are more typically made from cucumbers that are 3 to 5 inches long. You can leave them whole, or slice them lengthwise into spears or crosswise into slices or chunks.

When cucumbers grow longer than 5 inches, they are best chopped and made into relish. Fresh-eating "slicing" varieties and "burpless" cucumbers can be used in relishes or for quick process bread-and-butter pickles, but are not suitable for fermented pickles or fresh pack dill pickles.

Wax-coated cucumbers bought from supermarkets are not suitable for pickling because of varietal qualities, and because the pickling solution cannot penetrate the wax coating.

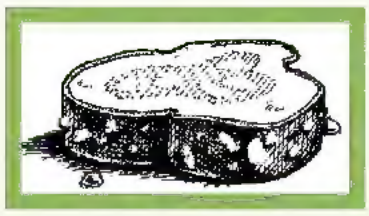
For best quality, pickle fruits or vegetables within 24 hours of harvest, or refrigerate for no more than a few days. This is particularly important for cucumbers because they deteriorate rapidly, and if stored for too long will not make a quality product.

Just before pickling, sort fruits and vegetables for uniform size according to recipe directions. Wash carefully, especially around the stems. Soil trapped near the stem can be a source of bacteria that can cause pickles to soften.

Discard floating or damaged cucumbers, and fruits or vegetables that are over-ripe or damaged.

Remove all blossoms, and cut a $^{1}/_{16}$-inch slice from the blossom end of vegetables and discard. The blossoms contain enzymes that can cause softening and result in an unacceptable product.

## Start with the right ingredients



**Select fresh, firm, high quality vegetables and fruits for pickling. Varieties recommended for Wisconsin can be found in these publications, available from your county UW-Extension office or Cooperative Extension Publications at the address on the back cover:**

***Apple Cultivars for Wisconsin* A2105**

***Growing Pumpkins and Other Vine Crops in Wisconsin* A3688**

***Harvesting Vegetables from the Home Garden* A2727**

***Home Fruit Cultivars for Northern Wisconsin* A2488**

***Home Fruit Cultivars for Southern Wisconsin* A2582**

***Vegetable Cultivars and Planting Guide for Wisconsin Gardens* A1653**

## Water

**Softened water** is recommended for making pickles and relishes. Hard water usually contains **lime** — calcium hydroxide — that may:

- **decrease acidity,** resulting in an unsafe product, and
- **contain iron, magnesium or sulfur compounds** that can cause discoloration or off-flavors.

**If you use hard water,** you can remove some of these minerals:

- Boil the water for 15 minutes in a large kettle, then let the water stand in the kettle for 24 hours.
- After 24 hours, pour off the water carefully, leaving sediment in the kettle.

## Vinegar

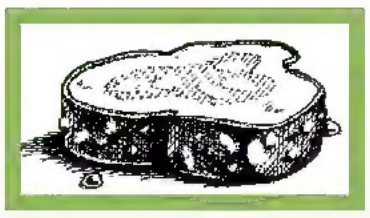
Use commercial vinegar that is standardized at a **5 percent acetic acid** content. Use the type of vinegar the recipe calls for, either white vinegar or cider vinegar. If the recipe does not specify a particular vinegar, use any of the following commercial vinegars of 5 percent acetic acid.

**Note: Many grocery stores now also stock 4 percent vinegar. This vinegar is not approved for home canning. Choose carefully.**

**White vinegar** has a mellow aroma and tart acid flavor, and maintains the appearance of light-colored vegetables or fruits. Many recipes specify white vinegar to ensure uniform flavor and attractive color.

**Apple cider vinegar** can be a good choice for many pickles. Its mellow, fruity taste blends well with other flavors. But cider vinegar darkens most vegetables and fruits.

**Apple cider flavored distilled vinegar** looks and tastes like apple cider vinegar, but is made by adding apple cider flavoring to white distilled vinegar. Use this as you would use apple cider vinegar.



**To prepare safe, high quality pickles, use softened water, undiluted commercial white or cider vinegar, canning and pickling salt and whole spices.**

**Never use homemade vinegar in making pickles, or vinegar that has been diluted, unless specified in the recipe. Otherwise, an unsafe product may result.**

**Firming agents such as calcium hydroxide (lime) and aluminum (alum) are not necessary for pickling and are no longer recommended. The use of lime in pickles may result in an unsafe product. Calcium chloride is used to firm commercial pickles. Tested recipes have not been developed for using calcium chloride in home canned products.**

**Do not** dilute vinegar unless the recipe specifies. An unsafe product may result. If you want a less sour product, add sugar rather than using less vinegar. Vinegar also loses strength as you boil it, so follow recipe instructions precisely.

Do not use homemade vinegar in making pickles. The acetic acid content of homemade vinegar is highly variable and may be too low to ensure safety.

Vinegar may naturally contain sediment in the bottom of the bottle. You can remove the sediment by straining the vinegar through double layers of cheesecloth. Avoid using a metal strainer, as it may darken the vinegar.

## Salt

**Canning and pickling salt** — pure granulated salt — is recommended for use in all kinds of pickles. This salt does not contain anti-caking agents or iodine, and is available in most supermarkets. Recipes in this booklet call for canning and pickling salt.

**Never alter salt concentrations in fermented pickles.** Proper fermentation depends on correct proportions of salt and other ingredients.

**Kosher pure flaked salt** requires special care if used for pickling. Flaked salt weighs less per volume than canning and pickling salt, so you need about 50 percent more — 1 1/2 cups of flaked salt equals about 1 cup of canning and pickling salt.

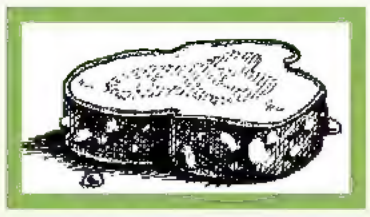
If you use kosher salt for fermented pickles, you must weigh out the proper amount. Weigh out 7 3/4 ounces (220 grams) of flaked salt, and you will have the equivalent of 1 cup of canning and pickling salt.

Kosher salt is more expensive than canning and pickling salt, and may be harder to find.

**Dairy salt** used in making cheese can also be used in making pickles, since it is pure salt. For best accuracy, weigh out 7 3/4 ounces (220 grams) of dairy salt per cup of salt in a recipe. No other adjustments in the recipe are necessary.

**Reduced-sodium ("light") salts** may be used in **fresh pack or quick process pickles** only, but may change the flavor. For best results, use tested recipes designed to be lower in sodium.

## Use the right amount of salt



**Recipes in this publication call for canning and pickling salt. If you use other pure salt such as kosher salt or dairy salt for making fermented pickles, weigh salt to equal each cup of canning and pickling salt. For the same weight, measures will vary (see chart below).**

**Plain or iodized table salt, sea salt, reduced-sodium salts and salt substitutes may be used for making fresh pack or quick process pickles, but may not yield a quality product. Ice cream salt, rock salt and solar salt are not considered food-grade and should not be used for pickling.**

**Plain table salt, iodized table salt** and **sea salt** are **not recommended** for pickling. Table salt contains anti-caking ingredients that make the pickling solution cloudy and leave sediment at the bottom of the jar. Iodine may also darken pickles, in addition to producing a cloudy brine.

If you find you must use table salt, sea salt or **salt substitutes** for pickling, use these only for **fresh pack or quick process pickles**. Avoid using these for fermented pickles. The potassium chloride in salt substitutes cannot substitute for sodium chloride in the brines for fermented pickles.

**Ice cream salt, rock salt** and **solar salt** should **not** be used for pickling. These salts are not considered food-grade, and contain impurities that can cause discoloration or other defects in pickled products.

## Weigh salt for best accuracy

| Type of salt | Weight equivalent | Measure |
|---|---|---|
| Canning and pickling salt (Morton®)* | 7 3/4 oz. (220 g.) | 1 cup |
| Kosher flaked salt (Diamond Crystal®)* | 7 3/4 oz. (220 g.) | 1 1/2 cups |

* Reference to products is not intended to endorse them, nor to exclude others that may be similar. If you use these products, follow the manufacturer's current label directions.

oz. = ounce  g. = gram

## Sugar

**Either white granulated sugar or brown sugar** can be used in pickle recipes, depending on your preference and the product color you desire.

**Some honey** could be used in making the sweet-sour syrup for fruit pickles. But substitute sparingly — too much honey can mask fruit flavor.

**Sugar substitutes** (artificial sweeteners) are **not recommended** in pickling because the heat processing required may cause a bitter flavor.

## Spices, garlic and dill

Most pickle recipes call for **whole spices** for fresher and more concentrated flavor than ground spices. Spices deteriorate and lose their pungency in heat and humidity. Store any unused spices in an airtight container in a cool place.

To keep spices from discoloring pickles, tie them in a cheesecloth bag before adding to the pickling solution. After simmering in the pickling solution, remove the spice bag.

**Garlic** should be mature and free from dark spots or discoloration. Separate the bulb into cloves. Tap each clove with a knife to easily loosen and peel off the thin papery skin.

**Dill heads** — fresh green-seeded heads of the dill plant — are best for making dill pickles.

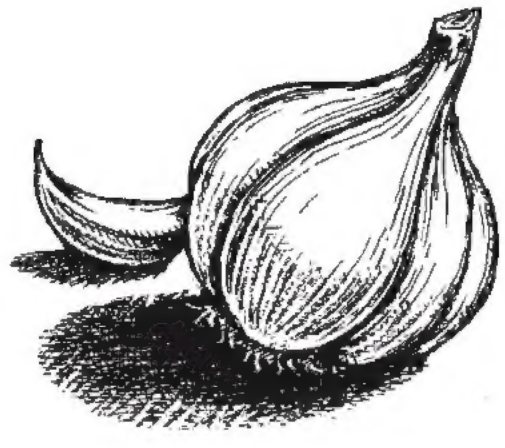
If dill is ready before cucumbers are in season, store it in the freezer as follows:

- Cut fresh dill heads, wash if needed, shake off excess moisture, and allow to air dry for an hour.
- Place dill heads in a heavy food-grade plastic bag, seal, label and freeze.

You can also hold early dill by placing freshly washed heads in a large clean jar and covering the heads with undiluted commercial white or cider vinegar (5 percent acetic acid). Cover the jar and keep it in a cool place until you are ready to make dill pickles. Use the dill-flavored vinegar with the dill heads as you make fresh pack dill pickles later on.

**Fresh dill leaves, dried leaves (dill weed) or dried dill seeds** can be used if fresh dill heads are not available.

**Try this substitution: 1 tablespoon of dried dill seed or weed equals about one fresh dill head.**



## Grape leaves

Grape leaves have historically been used in fermented pickles. People found that if they placed grape leaves in the crock or brine during fermentation, cucumbers were less likely to soften.

Researchers later discovered that grape leaves contain varying amounts of a natural inhibitor that reduces the effect of a softening enzyme found on moldy cucumber blossoms.

If you remove the blossom end before soaking cucumbers in brine, you do not need to use grape leaves as a firming agent. Gently wash cucumbers and then trim a thin slice ($^1/_{16}$ inch) from the blossom end and discard.

## Firming agents

If you use freshly picked cucumbers, follow an up-to-date, tested recipe, and heat process pickles for the correct length of time. Pickles will turn out crisp and you won't need to add firming agents.

A recommended method for making crisp pickles is to **soak cucumbers in ice water for 4 to 5 hours before pickling.**

Use of a firming agent is **not recommended**. These are mentioned here only to describe the conditions under which they may be safely used.

Most firming agents provide calcium, which combines with natural pectin in vegetables and fruit to form calcium pectate, giving the pickles a firmer texture.

**Food grade calcium chloride** is used commercially to firm pickles. It is available at some home canning supply stores. Use at a rate of **no more than:**

- **1 teaspoon per gallon** of pickling solution in fresh pack pickles.
- **1 teaspoon per gallon** of brine in fermented pickles.

Tested recipes using calcium chloride are not currently available to home canners.

**Calcium hydroxide** — also called **pickling lime or slaked lime** — is available at some supermarkets or through home and garden catalogs. **Do not use agricultural or burnt lime; this is not food-grade.**

**Food-grade pickling lime can be safely used only if you follow each of these three rules:**

1. Lime is used as a lime-water solution **as an initial soak** for fresh cucumbers 12 to 24 hours before pickling them. It must **not** be added to the final brine or pickling solution.

2. Lime is added at a rate of **no more than** 2 tablespoons per gallon of water in the soaking solution.
3. **Excess lime absorbed by cucumbers is removed by rinsing.** To remove excess lime, drain the lime-water solution, rinse and then cover the cucumbers in fresh water. Soak in water for 1 hour. **Repeat rinsing and soaking two more times.**

**Caution:** To make safe pickles, excess lime absorbed by cucumbers must be rinsed off thoroughly after soaking. **Do not** add lime to the pickling solution; use only as an *initial soak*. Lime does not dissolve well in water, and may be slightly caustic (sting). Handle with care. Avoid inhaling lime dust while mixing the lime-water solution. Keep out of reach of children.

**Aluminum,** found in **alum**, also combines with natural pectin to firm the pickles' texture. While alum has long been used in home pickle making, it can give pickles an objectionable bitter or astringent flavor.

**Alum** is **not recommended** and is not included in the recipes in this bulletin. **If you choose to use alum, use it only for fermented cucumbers.** Alum does not work with fresh pack or quick process pickles.

## Equipment for fermented or crock pickles

**Container for brining pickles** — Use a clean container, usually 2 to 5 gallons in size. Any of the following would be an appropriate container:

- Crock or stone jar free of chips and with a good glaze on the interior surface.
- Heavy food-grade plastic container in which food products were originally packed, including plastic ice cream buckets and pails — If you are not sure whether a plastic container is safe for food, read its label or contact the manufacturer. Another option is to line the questionable container with several thicknesses of food-grade plastic bags.
- Stainless steel or glass container — Do not use copper, brass, galvanized steel or iron containers or utensils. These metals react with acids or salt, discoloring pickles or forming dangerous compounds.

**Cover and weight** — A large glass or china plate that will fit inside the container is suitable for holding vegetables beneath the brine. Weigh it down by placing a sealed, water-filled jar on top of the plate. The vegetables should be covered by 1 to 2 inches of brine.

Another method for sealing a crock is to fill a heavy-duty food-grade plastic bag with 2 to 3 inches of brine, seal the bag, and place it on the top of the crock, allowing it to completely cover the surface of the brine. Filling the bag with brine is a precaution, in case the bags are accidentally punctured.

**Caution: Do not use** plastic garbage bags for food storage. The chemicals used to manufacture non-food-grade plastic containers and bags may not be safe for food.

## Equipment for all pickles

**Container for heating pickling solution** — Use a large stainless steel, aluminum or unchipped enamelware pan or kettle for heating the pickling solution. Do not use copper, brass, galvanized steel or iron containers or utensils. These metals react with acids or salt, discoloring pickles or forming dangerous compounds.

**Measuring equipment** — Use standard cup and spoon measures for all liquid or dry ingredients. Kitchen scales are needed if recipes specify quantities of ingredients by weight, or if you substitute kosher flaked salt for canning and pickling salt.

**Canning jars and lids** — Standard home canning jars are recommended for pickled products. However, because the processing time for pickles is short, glass jars used to pack commercial products such as mayonnaise can be used — but **only if** standard two-piece canning lids fit their threaded rims. Do not reuse jars from commercial food products that are designed for one-time use, such as peanut butter, jelly, canned vegetables or pickles. Most recipes call for pint or quart jars. Use only the size jar specified in each recipe. Safe processing times may not have been calculated for larger jars. If you use 1 1/2 pint jars, process them as if they were quarts.

**Lids** — Use new two-piece vacuum seal lids, consisting of a flat metal lid with sealing compound and a reusable metal screw band. Pretreat lids as the package directs.

**Caution:** Porcelain-lined zinc caps and rubber rings have not been made for years, and are **not recommended**.

**Boiling water canner** — A boiling water canner is a large kettle with a tight-fitting cover and a rack to keep jars from resting on the bottom. The canner should be deep enough for water to cover the tops of the jars by 1 or 2 inches without boiling over. The diameter of the canner should be no more than 4 inches wider than the diameter of your stove's burner

to ensure proper heat treatment for all jars. Do not use a large wash kettle that fits over two burners because the middle jars may not get enough heat.

A deep pressure canner can be used as a boiling water canner. Just be sure the canner is deep enough to allow for 1 to 2 inches of briskly boiling water above the jar lids. Fill the pressure canner with hot water, add jars and enough water to cover them by 1 to 2 inches, and place the lid on the canner. But do not lock the lid in place, and leave the petcock open or weighted pressure control off.

**Other equipment you may need** — Candy or jelly thermometer (if you pasteurize pickles), bowls, mixing spoons, timer, jar-filling supplies (funnel, ladle, rubber spatula, lid and jar lifters), pot holders, wire rack, labeling supplies.

### Sterilizing jars

If the recipe calls for a **short processing time** — less than 10 minutes — wash jars in warm, soapy water, and rinse. **Sterilize jars by boiling for 10 minutes.** Keep hot until filled.

**Recipes for refrigerator pickles are not heat processed, and jars must also be sterilized by boiling for 10 minutes before filling.**

## Processing in a boiling water canner

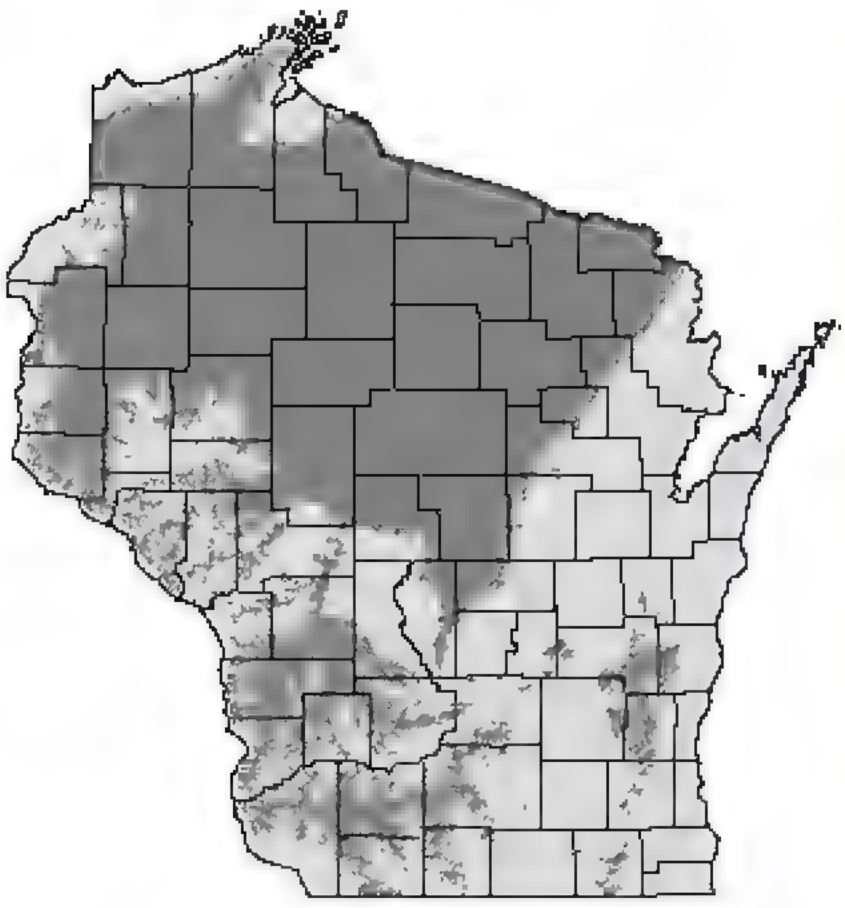
Except for refrigerator or freezer pickles, pickle products require heat treatment after jars are filled to obtain a safe, high quality product. Heat processing seals jars and destroys harmful organisms and enzymes that can cause spoilage, softening or off-flavors.

For adequate heating, process in a boiling water canner for the correct length of time.

Follow these steps for processing pickles and relishes in a boiling water canner:

1. Pretreat two-piece lids as the package directs.
2. Thoroughly wash and rinse jars. Keep them hot until you fill them. If you have a dishwasher, run them through a complete cycle and keep them hot in the dishwasher.
3. Pack hot jars with vegetables or fruit. Fill one jar at a time with the pickle product — with raw cucumber for fresh pack dills, or with a heated pickle product. Do not pack too tightly. Immediately fill the jar with a boiling hot pickling solution, leaving the proper amount of headspace between the top of the liquid and the top of the jar (see illustration on page 14). When canning pickles and relishes, most recipes call for 1/2-inch headspace.

4. Remove air bubbles by sliding a rubber spatula or bubble freer between the food and the sides of the jar in several places. Add hot brine or pickling solution as needed to adjust headspace to recommended level. Wipe jar rims with a clean, damp cloth or towel. Place the lid on the jar. Screw the metal band on firmly, but not too tightly.
5. Place filled jars in a boiling water canner that has sufficient very hot water (140˚ to 170˚ F) in it to cover the jars and lids by at least 1 inch. Add boiling water carefully around jars if needed to bring the water level in the canner to 1 to 2 inches above the jar lids. Do not pour boiling water directly on jar lids.
6. Put the cover on the canner. When the water returns to a full rolling boil, start counting the processing time. **Add 5 minutes processing time for Wisconsin elevations above 1,000 feet.**
7. When the processing time is complete, carefully remove jars from the canner, without tilting, and place them upright on a rack or counter. Do not cover the jars during cooling. Do not retighten the bands on two-piece lids, even though they may be loose. If liquid has boiled out during processing, do not remove the lid to add more. As the jars cool, the lids will snap down in the center.
8. When jars have cooled, test for seal. Lid tops should be depressed and remain that way, and will ring when tapped with a spoon. After 24 hours or when jars are cool, you can carefully remove the screw bands. Wash and dry the jar lids and threads. Store jars without screw bands in a cool, dry place out of direct sunlight for up to 1 year.



## Elevation map

**Remember to adjust for elevation above sea level when processing pickles and relishes.** Consult the elevation map, or call your county Land Information office (listed under county government in your phone book). If you share recipes with friends and relatives, be sure to include adjustments for changes in elevation.

**Elevation above 1,000 feet**

**Elevation below 1,000 feet**

## When jars fail to seal

If any jars fail to seal, refrigerate the jars and consume the pickles or relish within 1 week.

You can also reprocess pickles and relishes within 24 hours:

- Remove the contents of the jars.
- Reheat the pickling solution or brine to boiling.
- Repack into clean, hot jars leaving proper headspace, remove bubbles, wipe jar rims clean and cap with new pretreated lids.
- **Process in a boiling water canner for the full length of time.**

## Alternative low-temperature pasteurization process

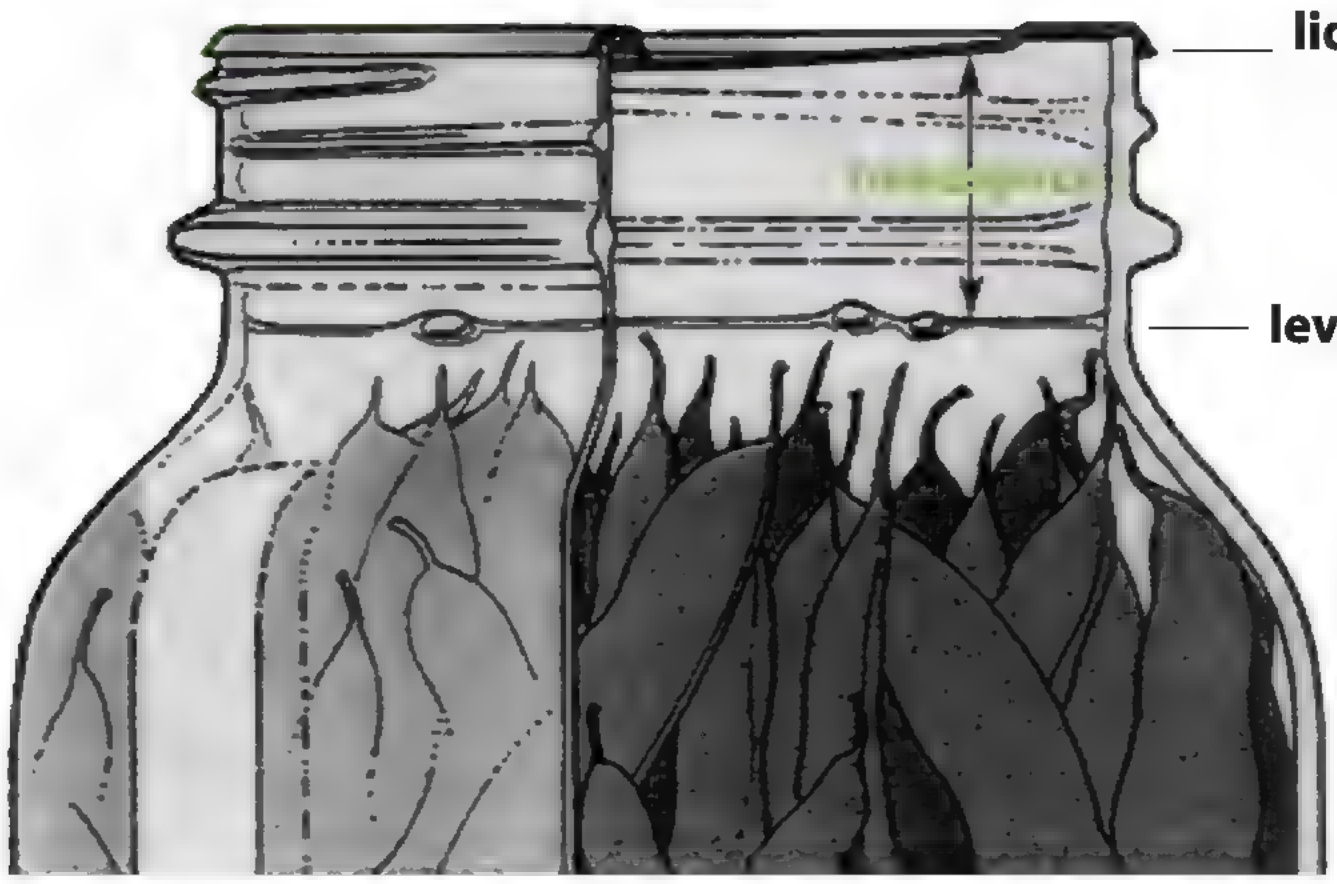
Low-temperature pasteurization can produce a better pickle texture, but must be done very carefully to avoid spoilage and is only acceptable for certain recipes.

Fill jars with room temperature pickles. Pour 165° to 180° F liquid over the product, leaving the appropriate headspace. Remove bubbles with a rubber spatula. Wipe the jars clean and adjust lids.

**Process at 180° F for 30 minutes.** Be sure to use a thermometer.

**Caution:** Use this process only when a recipe indicates (see sweet pickle recipes, pages 22-27).

## Headspace




Reprinted with permission from *Complete Guide to Home Canning*. Agriculture Information Bulletin No. 539 (Washington, D.C.: U.S. Department of Agriculture), 1994: http://extension.usu.edu/publica/foodpubs.htm

# Pickle recipes

**Hundreds of pickle recipes** can be found in cookbooks and reference books published by canning equipment makers — but not all are tested to ensure safety. The recipes in this publication are tested to ensure both safety and quality. Follow recipes precisely, adding the proper proportions of ingredients, and processing the final product for the correct length of time.

In many cases, you can make slight adjustments in spices. But be sure to keep proportions of vegetables or fruit, vinegar and water unchanged, and preparation steps intact.

For fermented pickles, you must also add the exact proportion of salt called for in each recipe.

Follow heat processing instructions accurately to produce safe, high quality pickles. Follow the steps on pages 12-13 for safe processing.

## Fermented or crock pickles

Fermented pickles — like Grandma used to make in a crock — use beneficial bacteria naturally present to convert cucumbers into pickles. Beneficial or "good" bacteria produce the acid that gives these pickles their familiar taste — and also preserve them so they can be processed and stored in a jar for up to 1 year.

Cucumbers or other vegetables are fermented in a salt brine for several weeks to prepare these pickles.

**Do not alter the amount of salt in fermented pickles.** Salt concentration is very important in fermentation.

- **Too little salt** will cause microbes to grow and allow spoilage to occur.
- **Too much salt** will slow the growth of desirable lactic acid-producing bacteria.

Accurately measure salt and water for pickle brine. If you substitute kosher flaked or dairy salt for canning and pickling salt, weigh out salt to make sure you have substituted the correct amount: 1 cup canning and pickling salt weighs $7\frac{3}{4}$ ounces (220 grams). See "Weigh salt for best accuracy" chart on page 7.

The chart on the next page lists the proportions of canning and pickling salt and water required for various brine strengths.

When cucumbers are placed in brine, they lose water and weight and become somewhat flexible or rubbery.

As cucumbers soak in the brine, they gradually absorb salt and become firm, crisp and tender. More salt is added during brining to keep the brine strong enough.

Properly fermented cucumbers will break when you bend them, and may gain weight as they absorb salt water. They will absorb sugar, vinegar and flavorings more readily than will fresh cucumbers. The color inside cured cucumbers is a uniform translucent olive-green, in contrast with opaque white fresh cucumber flesh.

During fermentation, cucumbers must be kept beneath the surface of the brine. A plate weighed down with a water-filled jar or a heavy-duty food-grade plastic bag filled with brine can keep the vegetables submerged.

Complete curing will take from 4 to 8 weeks, depending on the temperature during fermentation.

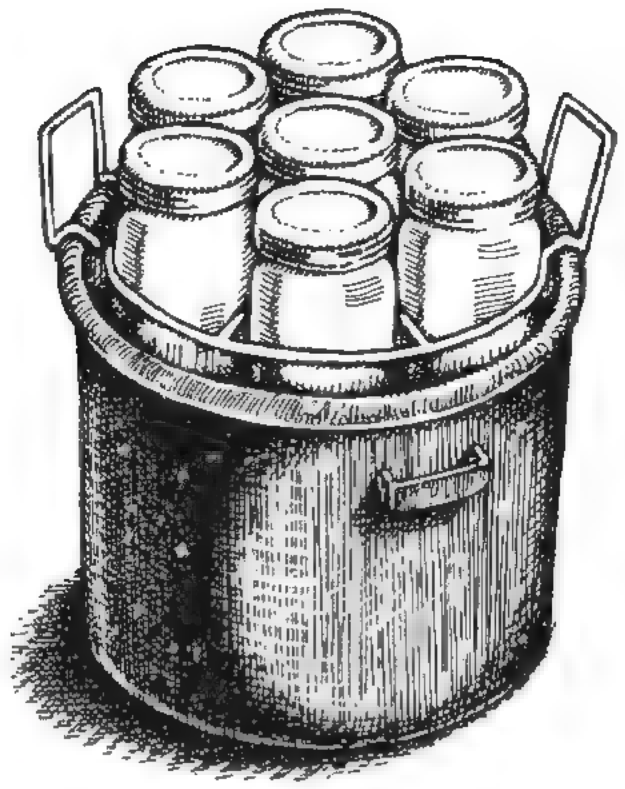
Good quality pickles may be produced when the crock is stored between 70˚ and 75° F. Temperatures of 55˚ to 65° F are also acceptable, but fermentation will take longer.

Avoid temperatures above 80˚ F, because pickles will become soft and may spoil.

After fermentation is complete, pickles should be heat processed in a boiling water canner. Canned fermented pickles can be stored on the shelf for up to 1 year.

The recipes in this bulletin call for canning and pickling salt. If you substitute kosher flaked salt, for best accuracy weigh 7 3/4 ounces (220 grams) kosher salt per cup of canning and pickling salt.

For fresh pack or quick process pickles only, you may use plain or iodized table salt, sea salt, reduced-sodium salt or salt substitutes. But using these may not yield a quality product. Ice cream salt, rock salt and solar salt should not be used in any pickle recipe. These salts are not considered food-grade, and may be unsafe to use.



**Note:**

g. = gram
lb. = pound
oz. = ounce
tbsp. = tablespoon
tsp. = teaspoon
1 quart = 2 pints = 4 cups

## Brines for fermented pickles

| Brine strength % salt | Proportion of salt and water | Use |
|---|---|---|
| 5% | 3/4 cup (5.8 oz. or 164 g.) salt per gallon of water | Short-term brining of cucumbers, green tomatoes, green snap beans |
| 10% | 1 1/2 cups (11.6 oz. or 329 g.) salt per gallon of water | Starting concentration for brining cucumbers and cauliflower |
| 15% | 2 1/4 cups (19.2 oz. or 544 g.) salt per gallon of water | Final brine strength for cucumbers and cauliflower |

# FERMENTED PICKLE RECIPE

## Dill pickles

**4 lbs. pickling cucumbers, 3 to 6 inches long**

**4 to 5 heads fresh or dry dill weed, *or* 2 tbsp. dill seed**

**1/2 cup canning and pickling salt**

**1/4 cup vinegar (5% acetic acid)**

**8 cups water**

**One or more of the following:**

**2 tsp. whole mixed pickling spice (optional)**

**2 garlic cloves, peeled (optional)**

**2 dried red peppers (optional)**

1. Wash cucumbers, and drain on a rack or wipe dry. Handle gently to avoid bruising. Trim 1/16 inch from the blossom end and discard. But leave 1/4-inch stem attached. Place half of dill and spices on the bottom of a clean crock or a container of glass or food-grade plastic. Add cucumbers, remaining dill, and spices.
2. Mix the vinegar and water together. Add salt and stir to dissolve. Pour the vinegar and salt mixture over cucumbers.
3. Cover with a heavy plate or lid that fits inside the crock or container.
4. Use a weight to hold the plate down and keep the cucumbers under the brine. Cover the crock loosely with a clean cloth. Keep pickles at room temperature (70° to 75° F). Temperatures of 55° to 65° F are acceptable, but then fermentation will take 5 to 6 weeks. Avoid temperatures above 80° F, or pickles will become too soft during fermentation. Do not stir pickles around in the container, but be sure they are completely covered with brine. If necessary, make more brine using the original proportions. Remove scum daily. Most scum can be avoided if you use a brine-filled bag to seal the crock. See page 16.

   **Caution: If the pickles become soft or slimy, or develop a disagreeable odor, discard them.**
5. In about 3 weeks, the cucumbers will have become olive green and should have a desirable flavor.
6. Once the fermentation is complete, heat process pickles for storage. To process fermented dill pickles, drain the pickles, collecting the fermentation brine. Strain the fermentation brine through a double layer of cheesecloth or paper coffee filters into a large pan. Heat to boiling, and simmer for 5 minutes.

# FERMENTED PICKLE RECIPE

Some people dislike the flavor and cloudiness of the fermentation brine, and prefer to prepare fresh brine for canning.

**To make fresh brine:**
Add 1/2 cup salt and 1 quart vinegar (5% acetic acid) to 1 gallon water. Heat to boiling, and simmer for 5 minutes.

7. Pack the fermented pickles and some of the dill into clean, hot quart jars. Do not pack too tightly. Add a fresh garlic clove to each jar, if desired. Cover with hot brine, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
8. Cap jars with pretreated lids. Adjust lids.
9. **Process in a boiling water canner: 10 minutes for pints, 15 minutes for quarts.***

**Note:** This recipe requires about 3 weeks for the cucumbers to ferment when the crock is stored at 70° to 75° F.

**Yield:** 9 to 10 quarts

*Adjust time for elevation; see map on page 13.

*Make Your Own Sauerkraut* (B2087) is available from your county UW-Extension office or Cooperative Extension Publications (learningstore.uwex.edu).

## Bread-and-butter pickle slices

**6 lbs. pickling cucumbers, 4 to 5 inches long, *or* slender zucchini or yellow squash (1 to 1 1/2 inches in diameter)**

**8 cups onions (about 3 pounds), peeled and thinly sliced**

**1/2 cup canning and pickling salt**

**Crushed or cubed ice**

**1 cup pickling lime (optional, see directions for firmer pickles)**

### Pickling solution:

**4 1/2 cups sugar**

**4 cups vinegar (5% acetic acid)**

**2 tbsp. mustard seed**

**1 1/2 tbsp. celery seed**

**1 tbsp. ground mustard**

1. Wash cucumbers or squash carefully. Trim 1/16 inch from the blossom end and discard. Cut into 3/16-inch slices. Combine cucumbers or squash and sliced onions in a large bowl. Add salt. Cover with 2 inches crushed or cubed ice. Refrigerate 3 to 4 hours, adding more ice as needed. Drain.

Or:

**For firmer pickles:** Wash cucumbers or squash carefully. Trim 1/16 inch from the blossom end and discard. Cut into 3/16-inch slices. Mix 1 cup pickling lime, 1/2 cup salt and 1 gallon water in a 2- to 3-gallon crock, glass or enamelware container. **Caution: Avoid inhaling lime dust while mixing the lime-water solution.** Cover and soak cucumbers in lime-water solution for 12 to 24 hours, stirring occasionally. Remove cucumbers from lime solution, rinse well and resoak 1 hour in fresh cold water. Repeat the rinsing and soaking step **two more times**. Rinse and drain. Handle carefully, as slices will be brittle. Drain well.

2. Prepare pickling solution by combining sugar, vinegar and spices in a large kettle. Bring to a boil, and boil 10 minutes. Add well-drained cucumbers (or squash) and onions, and slowly reheat to a boil.
3. Fill clean, hot pint or quart jars with slices and pickling solution, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
4. Cap jars with pretreated lids. Adjust lids.
5. **Process in a boiling water canner: 10 minutes for pints or quarts.***

**Note:** After processing and cooling, store jars for 4 to 5 weeks to develop ideal flavor.

**Yield:** 7 to 8 pints

*Adjust time for elevation; see map on page 13.

## Dill pickles, quick process

**8 lbs. pickling cucumbers, 3 to 5 inches long**

**2 gallons water**

**3/4 cups canning and pickling salt**

### Pickling solution:

**1 1/2 quarts vinegar (5% acetic acid)**

**1/2 cup canning and pickling salt**

**1/4 cup sugar**

**2 quarts water**

**2 tbsp. whole mixed pickling spice**

**3 to 4 tbsp. whole mustard seed (1 tsp. per pint jar)**

**10 to 12 fresh dill heads, washed (1 1/2 heads per pint jar), *or* 1 tbsp. dill seed or dill weed per pint jar**

**1 or 2 garlic cloves per jar, peeled (optional)**

1. Wash cucumbers carefully. Trim 1/16 inch from the blossom end and discard. But leave 1/4-inch stem attached.
2. Prepare brine by dissolving 3/4 cups salt in 2 gallons water. Pour over cucumbers, cover and let stand 12 hours. Drain.
3. Prepare pickling solution of vinegar, 1/2 cup salt, sugar and 2 quarts water in a large saucepan. Add mixed pickling spices tied in a clean cheese-cloth bag. Heat to boiling. Remove the spice bag.
4. Pack cucumbers into clean, hot pint or quart jars, leaving 1/2-inch headspace. If desired, add 1 teaspoon mustard seed, 1 1/2 fresh dill heads and 1 or 2 garlic cloves per jar. Cover cucumbers with hot pickling solution, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
5. Cap jars with pretreated lids. Adjust lids.
6. **Process in a boiling water canner: 10 minutes for pints, 15 minutes for quarts.***

**Yield:** 7 to 9 pints

## Dill pickles, reduced sodium

**4 lbs. pickling cucumbers, 3 to 5 inches long**

**6 cups vinegar (5% acetic acid)**

**6 cups sugar**

**2 tbsp. canning and pickling salt**

**1 1/2 tsp. celery seed**

**1 1/2 tsp. mustard seed**

**2 large onions, peeled and thinly sliced**

**8 fresh dill heads**

1. Wash cucumbers carefully. Trim 1/16 inch from the blossom end and discard. Cut cucumbers into 1/4-inch slices.
2. Combine vinegar, sugar, salt, celery seeds and mustard seeds in a large saucepan. Bring mixture to a boil.
3. Place 2 slices onion and 1/2 dill head on the bottom of each clean, hot pint jar. Fill jars with cucumber slices, leaving 1/2-inch headspace. Add 1 slice onion and 1/2 dill head on top. Pour hot pickling solution over cucumber slices, leaving 1/4-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
4. Cap jars with pretreated lids. Adjust lids.
5. **Process in a boiling water canner: 15 minutes for pints.***

**Yield:** 8 pints

## Quick sweet pickles

**1 gallon pickling cucumbers, 3 to 4 inches long (about 8 lbs.)**

**1/3 cup canning and pickling salt**

**Crushed or cubed ice**

**1 cup pickling lime (optional, for firmer pickles — see variation, next page)**

### Pickling solution:

**4 1/2 cups sugar**

**3 1/2 cups vinegar (5% acetic acid)**

**2 tsp. celery seed**

**1 tbsp. whole allspice**

**2 tbsp. mustard seed**

1. Gently wash cucumbers. Trim 1/16 inch from the blossom and discard. But leave 1/4-inch stem attached. Slice cucumbers, or cut into strips.
2. Place cucumbers in a bowl and sprinkle with 1/3 cup salt. Cover with 2 inches of cubed or crushed ice. Refrigerate 3 to 4 hours. Add more ice as needed. Drain well.
3. Combine sugar, vinegar, celery seed, allspice and mustard seed in a 6-quart kettle to make the pickling solution. Heat to a boil.

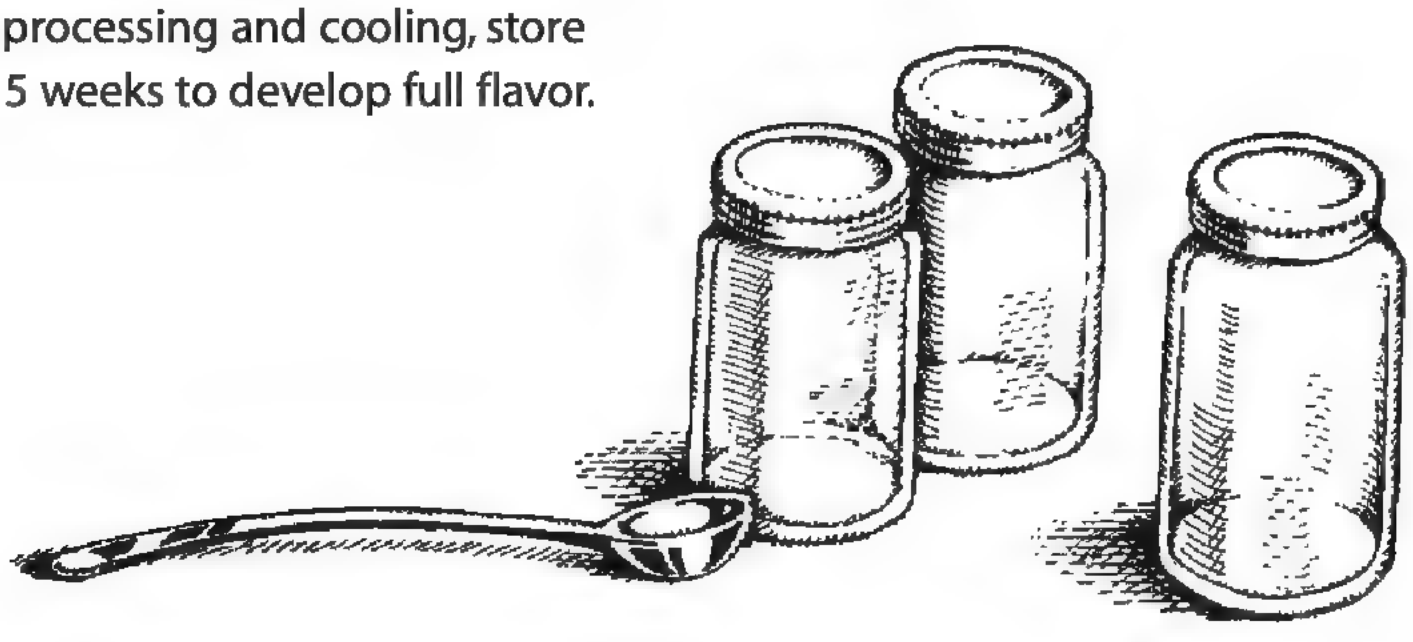
*Adjust time for elevation; see map on page 13.

4. **Hot pack** — Add cucumbers to pickling solution and heat slowly until vinegar solution returns to a boil. Stir occasionally to make sure the mixture heats evenly. Fill hot, **sterilized** pint or quart jars (see page 12) with cucumber slices or strips, leaving 1/2-inch headspace. Cover with boiling hot pickling solution, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth. Cap jars with pretreated lids. Adjust lids.
**Process in a boiling water canner: 5 minutes for pints or quarts.***
Or:
**Raw pack** — Fill clean, hot pint or quart jars with drained cucumber slices or strips, leaving 1/2-inch headspace. Cover with boiling hot pickling solution, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth. Cap jars with pretreated lids. Adjust lids.
**Process in a boiling water canner: 10 minutes for pints, 15 minutes for quarts.* Or use low-temperature pasteurization** (see page 14).

**Note:** After processing and cooling, store jars for 4 or 5 weeks to develop full flavor.

**Variation for firmer pickles:** Wash cucumbers. Trim 1/16 inch from the blossom end and discard. But leave 1/4-inch stem attached. Cut cucumbers into slices or strips. Mix 1 cup pickling lime and 1/3 cup salt in 1 gallon water in a 2- to 3-gallon crock or enamelware container. **Caution:** Avoid inhaling lime dust while mixing the lime-water solution. Soak cucumber slices or strips in lime water solution for 12 to 24 hours, stirring occasionally. Remove from lime solution. Rinse, and soak for 1 hour in fresh cold water. Repeat the rinsing and resoaking **two more times**. Handle carefully, because slices or strips will be brittle. Drain well. Pack jars and process as directed for hot or raw pack.

**Yield:** 7 to 9 pints



## Sweet 4-day gherkins or chunk pickles

**5 quarts whole small cucumbers, 1 1/2 to 3 inches long (7 lbs.) *or* medium cucumbers (7 to 8 lbs.)**

**1/2 cup canning and pickling salt**

### Pickling solution:

**8 cups sugar**

**6 cups vinegar (5% acetic acid)**

**3/4 tsp. turmeric**

**2 tsp. celery seed**

**2 tbsp. whole mixed pickling spice**

**2 sticks cinnamon**

### Day 1

**Morning:**

Wash cucumbers thoroughly and remove all blossoms; drain. Trim 1/16 inch from the blossom end and discard. But leave 1/4-inch stem attached. Place cucumbers in a large container and add boiling water to cover. Let stand, covered, at room temperature (65° to 75° F).

**Afternoon** (6 to 8 hours later):

Drain cucumbers and return to container. Sprinkle with 1/4 cup salt and cover with fresh boiling water. Let stand, covered, at room temperature.

### Day 2

**Afternoon:**

Drain cucumbers and return to container. Sprinkle with 1/4 cup salt and cover with fresh boiling water. Let stand, covered, at room temperature.

### Day 3

**Morning:**

Drain. For gherkins (small cucumbers), prick cucumbers in several places with a table fork. Cut medium cucumbers in chunks or slices 1/2-inch thick. Return whole cucumbers or slices to container. Make pickling solution of 3 cups sugar and 3 cups vinegar. Add turmeric and other spices. Heat to boiling and pour over cucumbers. Cucumbers may be only partially covered at this point.

**Afternoon** (6 to 8 hours later):

Drain cucumbers, reserving pickling solution. Return cucumbers to container. Add 2 cups sugar and 2 cups vinegar to the reserved pickling solution. Heat to a boil, and pour over pickles.

### Day 4

**Morning:**

Drain cucumbers, reserving pickling solution. Return cucumbers to container. Add 2 cups sugar and 1 cup vinegar to the reserved pickling solution. Heat to a boil, and pour over pickles.

**Afternoon** (6 to 8 hours later):

Drain cucumbers, collecting pickling solution in a large saucepan. Add remaining 1 cup sugar to pickling solution. Heat to a boil. Pack cucumbers into clean, hot pint jars and cover with boiling pickling solution, leaving 1/2-inch headspace. Wipe jar rims with a clean, damp cloth. Cap jars with pretreated lids. Adjust lids.

**Process in a boiling water canner:**
**5 minutes for pints* or use low-temperature pasteurization** (see page 14).

**Yield:** 9 to 10 pints

## Sweet 14-day cucumber or cauliflower pickles

**4 to 6 quarts whole pickling cucumbers, 2 to 5 inches long (4 lbs.) *or* fresh cauliflower, separated into flowerets (4 lbs.)**

**3/4 cup canning and pickling salt, separated (1/4 cup on each of the 1st, 3rd and 5th days)**

### Pickling solution:

**2 tsp. celery seed**

**2 tbsp. mixed pickling spices**

**5 1/2 cups sugar**

**4 cups vinegar (5% acetic acid)**

### Day 1

Wash cucumbers carefully. Trim 1/16 inch from the blossom end and discard. But leave 1/4-inch stem attached. Wash cauliflower well. Pack carefully washed whole cucumbers or cauliflower flowerets into a suitable 1-gallon container. Add 1/4 cup salt to 2 quarts water and bring to a boil. Pour over cucumbers or cauliflower. Weigh down vegetables with a plate to keep them submerged, and cover the container with a clean towel. Allow to stand for 2 days at about 70° F.

### Days 3 and 5

Drain off brine and discard. Rinse vegetables. Remove any scum that has formed. Scald the container, cover, and dish or plate used to weigh down vegetables. Return vegetables to container. Add 1/4 cup salt to 2 quarts fresh water in a saucepan. Bring to a boil. Pour over vegetables. Replace cover and weight. Cover with a clean towel. Allow to stand for 2 days at 70° F. Repeat.

### Day 7

Drain brine and discard. Rinse vegetables. Scald containers, cover and weight.

**Important:** Slice cucumbers now, either lengthwise or crosswise, to prevent shriveling.

Return vegetables to container.

Place celery seed and pickling spices in a small cheesecloth bag. Combine 2 cups sugar and 4 cups vinegar in a saucepan. Add spice bag, bring to a boil, and pour hot pickling solution over vegetables. Add cover and weight. Cover with a clean towel.

*continued,*

*Adjust time for elevation; see map on page 13.

### Days 8, 9, 10, 11, 12 and 13

Drain pickling solution and spice bag and save. Add 1/2 cup sugar each day to drained pickling solution, and bring to a boil in a saucepan. Remove vegetables from container and rinse. Scald container, cover and weight daily. Return rinsed vegetables to container, add boiled pickling solution, cover and weight. Cover with a clean towel.

### Day 14

Drain pickling solution into a kettle, add 1/2 cup sugar, and bring to a boil. Discard spice bag. Pack vegetables into clean, hot pint or quart jars. Cover with boiling pickling solution, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth. Cap jar with pretreated lids. Adjust lids.

**Process in a boiling water canner: 5 minutes for pints, 10 minutes for quarts.* Or use low-temperature pasteurization** (see page 14).

**Yield:** 8 to 10 pints

*Adjust time for elevation; see map on page 13.

## Sweet pickle slices, reduced-sodium

**4 lbs. (3- to 4-inch) pickling cucumbers**

**Brining solution:**

- **1 qt. distilled white vinegar (5% acetic acid)**
- **1 tbsp. canning or pickling salt**
- **1 tbsp. mustard seed**
- **1/2 cup sugar**

**Canning syrup:**

- **1 2/3 cups distilled white vinegar (5% acetic acid)**
- **3 cups sugar**
- **1 tbsp. whole allspice**
- **2 1/4 tsp celery seed**

Wash cucumbers and cut 1/16 inch off blossom end, and discard. Cut cucumbers into 1/4-inch slices. Combine all ingredients for canning syrup in a saucepan and bring to boiling. Keep syrup hot until used. In a large kettle, mix the ingredients for the brining solution. Add the cut cucumbers, cover, and simmer until the cucumbers change color from bright to dull green (about 5 to 7 minutes). Drain the cucumber slices. Fill hot pint jars with cucumber slices, and cover with hot canning syrup leaving 1/2-inch headspace. Remove bubbles. Wipe jar rims and adjust lids.

**Process in a boiling water canner 10 minutes for pints.***

**Yield:** About 4 to 5 pints

## Sweet pickle slices, no sugar added

**3 1/2 lbs. of pickling cucumbers, sliced, and boiling water to cover**

**4 cups cider vinegar (5% acetic acid)**

**3 cups Splenda®**

**1 tbsp. canning salt**

**1 cup water**

**1 tbsp. mustard seed**

**1 tbsp. whole allspice**

**1 tbsp. celery seed**

**4 one-inch cinnamon sticks**

1. Wash cucumbers. Slice 1/16 inch off the blossom ends and discard. Slice cucumbers into 1/4-inch thick slices. Pour boiling water over the cucumber slices and let stand 5 to 10 minutes. Drain off the hot water and pour cold water over the cucumbers. Let cold water run continuously over the cucumber slices, or change water frequently until cucumbers are cooled. Drain slices well.
2. Mix vinegar, 1 cup water, Splenda® and all spices in a 10-quart Dutch oven or stockpot. Bring to a boil. Add drained cucumber slices carefully to the boiling liquid. Return to a boil.
3. Place one cinnamon stick in each jar, if desired. With a slotted spoon, fill hot pickle slices into clean, hot pint jars, leaving 1/2-inch headspace. Cover with boiling hot pickling brine, leaving 1/2-inch headspace. Remove air bubbles. Wipe jar rims and adjust lids.

**Process in a boiling water canner 10 minutes for pints.***

**Yield:** About 4 or 5 pints

# VEGETABLE PICKLE RECIPES

## Artichoke pickles

**2 gallons Jerusalem artichokes**

**Vinegar (5% acetic acid) to cover**

**2 cups canning salt**

**4 tbsp. turmeric**

**10 to 12 medium red peppers**

### Pickling solution:

**1 gallon vinegar (5% acetic acid)**

**13 cups (6 pounds) sugar**

**1/2 cup pickling spice (tied in spice bag)**

**2 tbsp. turmeric**

1. Scrub Jerusalem artichokes and cut into chunks. Pack in a food grade plastic container, crock or glass jar. Cover with vinegar. Add 2 cups salt and 4 tablespoons of turmeric; mix. Soak 24 hours.
2. About 30 minutes before that time is up, prepare pickling solution by combining 1 gallon vinegar, sugar, pickling spice and 2 tablespoons turmeric, in a large pan. Simmer for 20 to 25 minutes. Remove spice bag.
3. Drain artichokes, discarding the liquid. Pack artichokes into hot pint jars, adding 1 medium red pepper to each jar. Be sure to leave 1/2-inch headspace.
4. Fill to within 1/2 inch from the top with hot pickling solution. Remove air bubbles. Wipe jar rims and adjust lids.
5. **Process in a boiling water canner 10 minutes for pints.***

**Yield:** 10 or 12 pint jars

## Pickled asparagus

**10 lbs. asparagus**

**6 large garlic cloves**

**4 1/2 cups water**

**4 1/2 cups white distilled vinegar (5% acetic acid)**

**6 small hot peppers (optional)**

**1/2 cup canning salt**

**3 tsp. dill seed**

1. Wash asparagus well, but gently, under running water. Cut stems from the bottom to leave spears with tips that fit into the canning jar with a little less than 1/2-inch headspace. Place a peeled, washed, garlic clove at the bottom of each clean, hot pint or 12-ounce jar, and tightly pack asparagus into jars with the blunt ends down.

1. In an 8-quart Dutch oven or saucepot, combine water, vinegar, hot peppers (optional), salt and dill seed. Bring to a boil. Place one hot pepper (if used) in each jar over asparagus spears. Pour boiling hot pickling brine over spears, leaving 1/2-inch headspace.
3. Remove air bubbles. Wipe jar rims and adjust lids.
4. **Process in a boiling water canner 10 minutes for 12-ounce jars or pints.***

Allow pickled asparagus to sit in processed jars for 3 to 5 days before consumption for best flavor development.

**Yield:** 6 wide-mouth pints

*Adjust time for elevation; see map on page 13.

# VEGETABLE PICKLE RECIPES

## Dilly beans

**4 quarts whole green or wax beans (about 4 lbs.)**

**8 fresh dill heads, *or* 1 1/2 tsp. dill seed or dill weed per jar**

**8 garlic cloves (optional)**

**1/4 tsp. cayenne pepper *or* 1 small dried hot pepper per jar (optional)**

### Pickling solution:

**4 cups white vinegar (5% acetic acid)**

**4 cups water**

**1/2 cup canning and pickling salt**

1. Wash pint canning jars. Keep hot until filled.
2. Wash beans thoroughly, and drain. Cut into lengths to fit pint jars.
3. In each hot pint jar, place dill, garlic and pepper, if desired. Pack beans upright, leaving 1/2-inch headspace.
4. Prepare pickling solution of vinegar, water and salt in a saucepan, and bring to a boil. Pour boiling hot pickling solution over beans, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
5. Cap jars with pretreated lids. Adjust lids.
6. **Process in a boiling water canner: 5 minutes for pints.***

**Yield:** 7 to 8 pints

## Pickled three-bean salad

**1 1/2 cups green or yellow beans, cut and blanched (see step 1)**

**1 1/2 cups canned red kidney beans, drained**

**1 cup canned garbanzo beans (chick peas), drained**

**1/2 cup onion, peeled and thinly sliced (1 medium onion)**

**1/2 cup celery, trimmed and thinly sliced (1 1/2 medium stalks)**

**1/2 cup green peppers, cored and sliced (1/2 medium pepper)**

### Pickling solution:

**1/2 cup white vinegar (5% acetic acid)**

**1/4 cup bottled lemon juice**

**3/4 cup sugar**

**1 1/4 cups water**

**1/4 cup cooking oil (optional)**

**1/2 tsp. canning and pickling salt**

1. Wash fresh beans and snap off ends. Cut or snap into 1- to 2-inch pieces. **Blanch** beans 3 minutes in boiling water as follows: Place beans in actively boiling water. Cover and start timing the blanching process as soon as the water returns to a boil. After 3 minutes, transfer beans immediately to a pan of ice water and cool for 3 minutes. Drain.

*continued,*

## Pickled three-bean salad

*continued*

2. Rinse kidney and garbanzo beans with cold tap water and drain again. Prepare and measure all other vegetables.
3. Prepare pickling solution of vinegar, lemon juice, sugar and water, and bring to a boil. Remove from heat. Add oil and salt and mix well. Add beans (fresh and canned), onions, celery and green pepper to pickling solution, and bring to a simmer.
4. Cover and refrigerate 12 to 14 hours, then heat to a boil. Fill clean, hot half-pint or pint jars with hot pickled bean salad, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
5. Cap jars with pretreated lids. Adjust lids.
6. **Process in a boiling water canner: 15 minutes for pints or half-pints.***

**Yield:** About 3 pints, or 5 to 6 half-pints

*Adjust time for elevation; see map on page 13.

## Beet pickles

**7 lbs. red beets (2 to 2 1/2 inches in diameter), sliced, *or* whole baby beets (1 to 1 1/2 inches in diameter)**

**4 to 6 onions (2 to 2 1/2 inches diameter), peeled and thinly sliced (optional)**

### Pickling solution:

**4 cups white vinegar (5% acetic acid)**

**1 1/2 tsp. canning and pickling salt**

**2 cups water**

**2 cups sugar**

**12 whole cloves**

**2 sticks cinnamon**

1. Wash beets and trim off tops, leaving 1 inch of stem and the roots intact (to prevent bleeding of color). Cook unpeeled until skins can be slipped off easily and beets are tender, about 25 to 30 minutes. **Caution: Drain and discard liquid.**
2. Cool beets. Trim off roots and stems and slip off skins. Cut into 1/4-inch slices or leave baby beets whole. Peel and thinly slice onions.
3. Combine vinegar, salt, water and sugar to make pickling solution. Tie spices in a cheesecloth bag and add to pickling solution. Bring to a boil; add beets and onions, and simmer 5 minutes more. Remove spice bag.
3. Pack hot beets and onions into clean, hot pint jars. Pour boiling hot pickling solution over beets, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.

4. Cap jars with pretreated lids. Adjust lids.
5. **Process in a boiling water canner: 30 minutes for pints or quarts.***

**Yield:** 7 to 8 pints

## Pickled beets, no sugar added

**7 lbs. of 2- to 2 1/2-inch diameter beets**

**4 to 6 onions (2- to 2 1/2-inch diameter), if desired**

**6 cups vinegar (5% acetic acid)**

**1 1/2 tsp. canning or pickling salt**

**2 cups Splenda®**

**3 cups water**

**2 cinnamon sticks**

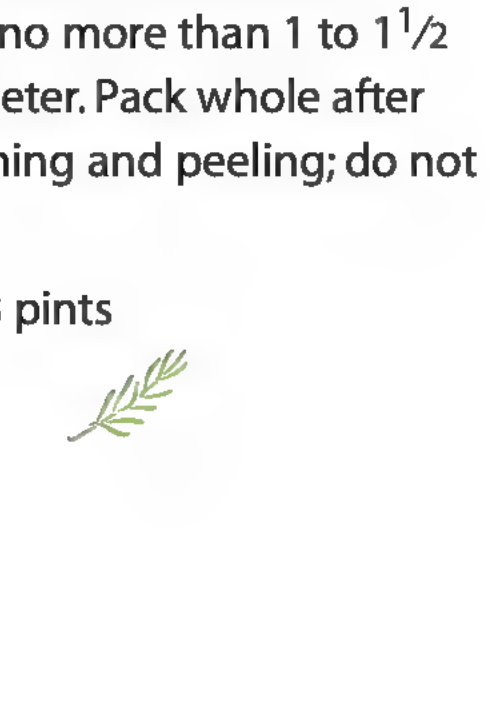
**12 whole cloves**

1. Trim off beet tops, leaving 1 inch of stem and roots to prevent bleeding of color. Wash thoroughly. Sort for size. Cover similar sizes together with boiling water and cook until tender (about 25 to 30 minutes). Caution: Drain and discard liquid.
2. Cool beets. Trim off roots and stems and slip off skins. Slice into 1/4-inch slices. Peel, wash and thinly slice onions.
3. Combine vinegar, salt, Splenda®, and fresh water in large Dutch oven. Tie cinnamon sticks and cloves in cheese-cloth bag and add to vinegar mixture. Bring to a boil. Add beets and onions. Simmer 5 minutes. Remove spice bag.
4. With a slotted spoon, fill hot beets and onion slices into clean, hot pint jars, leaving 1/2-inch headspace. Cover with boiling hot vinegar solution, leaving 1/2-inch headspace. Remove air bubbles. Wipe jar rims and adjust lids.

**Process in a boiling water canner 30 minutes for pints.***

**Variation:** Pickled whole baby beets—Follow the directions above but use beets that are no more than 1 to 1 1/2 inches in diameter. Pack whole after cooking, trimming and peeling; do not slice.

**Yield:** About 8 pints



## Pickled baby carrots

**8 1/2 cups peeled baby carrots**

**5 1/2 cups white distilled vinegar (5% acetic acid)**

**1 cup water**

**2 cups sugar**

**2 tsp. canning salt**

**8 tsp. mustard seed**

**4 tsp. celery seed**

1. Wash carrots well and peel, if necessary. Wash again after peeling.
2. Combine vinegar, water, sugar and canning salt in an 8-quart Dutch oven or stockpot. Bring to a boil and boil gently 3 minutes. Add carrots and bring back to a boil. Then reduce heat to a simmer and heat until the carrots are half-cooked (about 10 minutes).
3. Meanwhile, place 2 teaspoons mustard seed and 1 teaspoon celery seed in the bottom of each clean, hot pint jar.
4. Fill hot pint jars with the hot carrots, leaving 1-inch headspace. Cover with hot pickling liquid, leaving 1/2-inch headspace. Remove air bubbles. Wipe jar rims and adjust lids.
5. **Process in a boiling water canner, 15 minutes for pints.***

Allow carrots to sit in processed jars for 3 to 5 days before consuming for best flavor development.

## Cauliflower or Brussels sprouts sweet pickles

**12 cups cauliflower flowerets, 1 to 2 inch pieces, *or* small Brussels sprouts (about 3 quarts)**

### Pickling solution:

**4 cups white vinegar (5% acetic acid)**

**2 cups sugar**

**2 cups onions, peeled and thinly sliced**

**1 cup sweet red peppers, cored and diced**

**2 tbsp. mustard seed**

**1 tbsp. celery seed**

**1 tsp. turmeric**

**1 tsp. hot red pepper flakes**

1. Wash cauliflower flowerets or Brussels sprouts. Remove stems and blemished outer leaves, and boil in salt water — 4 teaspoons canning and pickling salt per gallon of water — 3 minutes for cauliflower and 4 minutes for Brussels sprouts. Drain and cool.
2. Prepare pickling solution by combining vinegar, sugar, onion, diced red pepper and spices in a large saucepan. Bring to a boil and simmer 5 minutes. Distribute onion and diced pepper among jars.
3. Fill clean, hot pint jars with cauliflower pieces or Brussels sprouts and cover with hot pickling solution, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
4. Cap jars with pretreated lids. Adjust lids.

5. **Process in a boiling water canner: 10 minutes for half-pints or pints.***

**Yield:** 5 to 6 pints

## Horseradish sauce, pickled

**2 cups (3/4 lb.) freshly grated horseradish**

**1 cup white vinegar (5% acetic acid)**

**1/2 tsp. canning or pickling salt**

**1/4 tsp. powdered ascorbic acid**

The pungency of fresh horseradish fades within 1 to 2 months, even when refrigerated. Therefore, make only small quantities at a time. Wash horseradish roots thoroughly and peel off brown outer skin. The peeled roots may be grated in a food processor or cut into small cubes and put through a food grinder. Combine ingredients and fill into sterile jars, leaving 1/4-inch headspace. Seal jars tightly and store in a refrigerator.

**Yield:** About 2 half-pints

*Adjust time for elevation; see map on page 13.

## Mushrooms, marinated whole

**7 lbs small whole mushrooms**

**1/2 cup bottled lemon juice**

**2 cups olive or salad oil**

**2 1/2 cups white vinegar (5% acetic acid)**

**1 tbsp. oregano leaves**

**1 tbsp. dried basil leaves**

**1 tbsp. canning or pickling salt**

**1/2 cup finely chopped onions**

**1/4 cup diced pimiento**

**2 cloves garlic, cut in quarters**

**25 black peppercorns**

Select very fresh unopened mushrooms with caps less than 1 1/4 inch in diameter. Wash. Cut stems, leaving 1/4 inch attached to cap. Add lemon juice and water to cover. Bring to boil. Simmer 5 minutes. Drain mushrooms. Mix olive oil, vinegar, oregano, basil, and salt in a saucepan. Stir in onions and pimiento and heat to boiling. Place 1/4 garlic clove and 2-3 peppercorns in a half-pint jar. Fill hot half-pint jars with mushrooms and hot, well-mixed oil/vinegar solution, leaving 1/2-inch headspace.

Remove bubbles, wipe jar rims and adjust lids.

**Process in a boiling water canner 20 minutes for half-pints.***

**Yield:** About 9 half-pints

# VEGETABLE PICKLE RECIPES

## Pickled onions

**4 quarts tiny pickling onions**

**1 cup salt**

**1 gallon cold water**

### Pickling solution:

**2 cups sugar**

**1/4 cup mustard seed**

**2 1/2 tbsp. prepared horseradish**

**2 quarts white vinegar (5% acetic acid)**

**3 or 4 garlic cloves, peeled and crushed**

**7 small hot red peppers**

**7 bay leaves**

**2 tbsp. mixed pickling spice, tied in spice bag (optional)**

1. Peel pickling onions. For easier peeling, cover with boiling water and let stand 2 minutes. Drain, dip in cold water, and peel.
2. Combine 1 gallon cold water and 1 cup salt. Pour over onions. Let stand 12 to 18 hours in the refrigerator. Drain, and rinse thoroughly. Drain again.
3. While onions are draining, prepare the pickling solution by combining vinegar, sugar, horseradish, spices and crushed garlic in a saucepan. Simmer 15 minutes. If you use mixed pickling spices, tie them in a clean cheesecloth bag and add to pickling solution. Remove spice bag before filling jars.
4. Pack onions into clean, hot pint jars. Pour boiling hot pickling solution over onions in the jars, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
5. Cap jars with pretreated lids. Adjust lids.
6. **Process in a boiling water canner: 10 minutes for pints.***

**Yield:** 7 pints

## Peppers, marinated

**Bell, Hungarian, banana, or jalapeño**

**4 lbs. firm peppers***

**1 cup bottled lemon juice**

**2 cups white vinegar (5% acetic acid)**

**1 tbsp. oregano leaves**

**1 cup olive or salad oil**

**1/2 cup chopped onions**

**2 cloves garlic, quartered (optional)**

**2 tbsp. prepared horseradish (optional)**

* **Note:** It is possible to adjust the intensity with the following options: For **hot style,** use 4 lbs. jalapeño peppers. For **medium style,** use 2 lbs. jalapeño peppers and 2 lbs. sweet and mild peppers. For **mild style,** use 1 lb. jalapeno peppers and 3 lbs. sweet and mild peppers.

**Caution: Wear plastic or rubber gloves and do not touch your face while handling or cutting hot peppers. If you do not wear gloves, wash hands thoroughly with soap and water before touching your face or eyes.**

1. Select your favorite pepper. Peppers may be left whole. Large peppers may be quartered. Wash, slash two to four slits in each pepper, and blanch in boiling water or blister in order to peel tough-skinned hot peppers.
2. Peppers may be blistered using one of the following methods: Oven or broiler method: Place peppers in a hot oven (400° F) or broiler for 6-8 minutes or until skins blister. Range-top method: Cover hot burner, either gas or electric, with heavy wire mesh. Place peppers on burner for several minutes until skins blister.
3. Allow peppers to cool. Place in pan and cover with a damp cloth. This will make peeling the peppers easier. After several minutes of cooling, peel each pepper. Flatten whole peppers.
4. Mix all remaining ingredients in a saucepan and heat to boiling. Place 1/4 garlic clove (optional) and 1/4 teaspoon salt in each half pint or 1/2 teaspoon per pint.
5. Fill hot jars with peppers, add hot, well-mixed oil/pickling solution over peppers, leaving 1/2-inch headspace. Remove air bubbles. Wipe jar rims and adjust lids.
6. **Process in a boiling water canner 15 minutes for pints and half-pints.***

**Yield:** About 9 half-pints

*Adjust time for elevation; see map on page 13.

## Pickled peppers

**4 quarts long red, green or yellow peppers, sweet or hot (6 to 7 lbs.)**

**3 1/2 cups sugar**

**3 cups white vinegar (5% acetic acid)**

**3 cups water**

**4 1/2 tsp. canning and pickling salt**

**9 garlic cloves, peeled**

1. Wash peppers. Cut large peppers into quarters, remove cores and seeds and slice into strips. If small peppers are left whole, slash 2 to 4 slits in each.

   **Caution:** The oils in hot peppers can cause burns. Wear rubber gloves when you cut these peppers. Do not touch your face, particularly near your eyes. Wash hands thoroughly with soap and hot water if you do handle hot peppers.
2. Combine vinegar, water, sugar and salt in a saucepan to make pickling solution. Boil for 1 minute. Add peppers and return to a boil.
3. Place 1 clove garlic and 1/2 teaspoon salt into each hot pint or half-pint jar. Add pepper strips or whole peppers to jars, flattening small peppers.
4. Pour boiling hot pickling solution over peppers, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
5. Cap jars with pretreated lids. Adjust lids.
6. **Process in a boiling water canner: 5 minutes for half-pints or pints.***

**Yield:** 7 to 8 pints

## Pickled jalapeño rings

**3 lbs. jalapeño peppers**

**1 1/2 cups pickling lime**

**1 1/2 gallons water**

**7 1/2 cups cider vinegar (5% acetic acid)**

**1 3/4 cups water**

**2 1/2 tbsp. canning salt**

**3 tbsp. celery seed**

**6 tbsp. mustard seed**

**Caution: Wear plastic or rubber gloves and do not touch your face while handling or cutting hot peppers. If you do not wear gloves, wash hands thoroughly with soap and water before touching your face or eyes.**

1. Wash peppers well and slice into 1/4" thick slices (a mandoline slicer works well). Discard stem end. Mix 1 1/2 cups pickling lime with 1 1/2 gallons water in a stainless steel, glass or food-grade plastic container. Avoid inhaling lime dust while mixing the lime-water solution. Soak pepper slices in the lime water, in refrigerator, for 18 hours, stirring occasionally (12 to 24 hours may be used).
2. Drain lime solution from soaked pepper rings. Rinse peppers gently but thoroughly with water. Cover pepper rings with fresh cold water and soak, in refrigerator, 1 hour. Drain water from peppers.
3. Repeat the rinsing, soaking and draining steps two more times. Drain thoroughly at the end.
4. Wash and rinse pint canning jars; keep hot until ready to use. Prepare lids according to manufacturer's directions.
5. Place 1 tablespoon mustard seed and 1 1/2 teaspoons celery seed in the bottom of each clean, hot pint jar. Pack drained pepper rings into the jars, leaving 1/2-inch headspace.
6. Bring cider vinegar, 1 3/4 cups water and canning salt to a boil over high heat. Ladle boiling hot brine solution over pepper rings in jars, leaving 1/2-inch headspace. Make sure pepper rings are covered with brine.
7. Remove air bubbles. Wipe jar rims and adjust lids.

**Process in a boiling water canner 10 minutes for pints.***

**Yield:** About 6 pint jars

*Adjust time for elevation; see map on page 13.

## Green tomato dill pickles, kosher-style

**6 quarts small, firm green tomatoes or green cherry tomatoes (12 to 15 lbs.)**

**6 garlic cloves, peeled**

**6 stalks celery, cut into 1-inch pieces**

**6 green peppers, seeded, cored and cut into strips**

**4 cups white vinegar (5% acetic acid)**

**8 cups water**

**1 cup canning and pickling salt**

**6 fresh dill heads, *or* 6 tbsp. dill seed or dill weed**

1. Carefully wash tomatoes. Remove stems.
2. Place a dill head and garlic clove in each clean, hot quart jar. Fill jars with green tomatoes, scattering a few pieces of celery and green pepper throughout each jar.
3. Combine vinegar, water and salt to make pickling solution. Add dill, and boil 5 minutes. Fill each jar with boiling hot pickling solution, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
4. Cap jars with pretreated lids. Adjust lids.
5. **Process in a boiling water canner: 15 minutes for quarts.***

**Note:** Pickled tomatoes will be ready to eat in 4 to 6 weeks.

**Yield:** 6 quarts

## Green tomato sweet pickles

**16 cups green tomatoes, sliced (10 to 11 lbs.)**

**2 cups onions, peeled and sliced**

**1/4 cup canning and pickling salt**

**3 cups brown sugar**

**4 cups vinegar (5% acetic acid)**

**1 tbsp. mustard seed**

**1 tbsp. allspice**

**1 tbsp. celery seed**

**1 tbsp. whole cloves**

1. Wash and slice tomatoes and onions. Place in a bowl, sprinkle with 1/4 cup salt, and let stand 4 to 6 hours. Drain.
2. Mix vinegar with sugar in a saucepan. Heat and stir until sugar dissolves. Make a spice bag of mustard seed, allspice, celery seed and cloves. Add to vinegar with tomatoes and onions. If needed, add just enough water to cover pieces. Bring to a boil and simmer 30 minutes, stirring as needed to prevent scorching. Tomatoes should be tender and translucent when properly cooked. Remove spice bag.
3. Fill clean, hot pint or quart jars with tomatoes and onions. Cover with boiling hot pickling solution, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
4. Cap jars with pretreated lids. Adjust lids.
5. **Process in a boiling water canner: 10 minutes for pints and 15 minutes for quarts.***

**Yield:** 9 pints

# VEGETABLE PICKLE RECIPES

## Pickled sweet green tomatoes

**10 to 11 lbs. of green tomatoes (16 cups sliced)**

**2 cups sliced onions**

**1/4 cup canning or pickling salt**

**3 cups brown sugar**

**4 cups vinegar (5% acetic acid)**

**1 tbsp. mustard seed**

**1 tbsp. allspice**

**1 tbsp. celery seed**

**1 tbsp. whole cloves**

1. Wash and slice tomatoes and onions. Place in bowl, sprinkle with 1/4 cup salt, and let stand 4 to 6 hours. Drain.
2. Heat and stir sugar in vinegar until dissolved. Tie mustard seed, allspice, celery seed, and cloves in a spice bag. Add to vinegar with tomatoes and onions. If needed, add minimum water to cover pieces.
3. Bring to boil and simmer 30 minutes, stirring as needed to prevent burning. Tomatoes should be tender and transparent when properly cooked. Remove spice bag.
4. Fill hot pint or quart jars with tomatoes and cover with hot pickling solution, leaving 1/2-inch headspace. Remove air bubbles. Wipe jar rims and adjust lids.

**Process in a boiling water canner 10 minutes for pints and 15 minutes for quarts.***

**Yield:** 9 pints

## Spiced green tomatoes

**6 pounds small whole green tomatoes**

**9 cups sugar**

**1 pint cider vinegar (5% acetic acid)**

**2 sticks cinnamon**

**1 tbsp. whole cloves**

**1 tbsp. whole allspice**

**1 tbsp. whole mace or 1/2 tbsp. ground mace**

Small green fig or plum tomatoes are suitable for this pickle. Wash, scald and peel. Make a syrup of the sugar, vinegar and spices. Drop in the whole tomatoes and boil until they become clear.

Pack tomatoes into hot pint jars, leaving 1/2-inch headspace. Strain syrup and cover tomatoes with the syrup, again leaving 1/2-inch headspace. Remove air bubbles. Wipe jar rims and adjust lids.

**Process in a boiling water canner 15 minutes for pints.***

**Yield:** 4 pint jars

*Adjust time for elevation; see map on page 13.

# VEGETABLE PICKLE RECIPES

## Vegetable mix hot pickles

**4 cups cauliflower, separated into flowerets (1 medium head)**

**1 sweet red pepper, seeded, cored and cut into strips**

**1 1/2 cups celery, cut diagonally into 1-inch chunks**

**2 cups carrots, sliced**

**2 medium onions, peeled and quartered *or* 1 cup small round onions, peeled and whole**

**5 or 6 dried red chili peppers**

**1/4 cup canning and pickling salt**

**1 quart water**

### Pickling solution:

**5 cups white vinegar (5% acetic acid)**

**1 cup water**

**1/2 cup sugar**

**1 garlic clove, peeled and crushed**

1. Prepare vegetables as indicated. Combine 1 quart water and 1/4 cup salt. Add vegetables and soak for 1 hour.
2. Prepare pickling solution by combining vinegar, water, sugar and crushed garlic clove. Simmer for 15 minutes.
3. Drain vegetables and pack into clean, hot pint jars. Place one dried hot pepper in each jar. Pour boiling hot pickling solution over vegetables in the jars, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
4. Cap jars with pretreated lids. Adjust lids.
5. **Process in a boiling water canner: 10 minutes for pints.**

**Yield:** 5 to 6 pints

## Vegetable mix sweet pickles

**4 lbs. pickling cucumbers, 4 to 5 inches long**

**2 lbs. small onions, peeled and quartered**

**4 cups celery, cut in 1-inch pieces**

**2 cups carrots, peeled and cut in 1/2-inch pieces**

**2 cups sweet red peppers, seeded, cored and cut in 1/2-inch pieces**

**2 cups cauliflower flowerets**

**Cubed or crushed ice**

### Pickling solution:

**5 cups white vinegar (5% acetic acid)**

**1/4 cup prepared mustard**

**1/2 cup canning and pickling salt**

**3 1/2 cups sugar**

**3 tbsp. celery seed**

**2 tbsp. mustard seed**

**1/2 tsp. whole cloves**

**1/2 tsp. ground turmeric**

1. Wash cucumbers carefully. Trim 1/16 inch from the blossom end and discard. Cut cucumbers into 1-inch slices. Combine cucumbers with other prepared vegetables, cover with 2 inches of cubed or crushed ice, and refrigerate 3 to 4 hours. Drain vegetables.
2. In an 8-quart kettle, combine vinegar and mustard and mix well. Add salt, sugar, celery seeds, mustard seeds, cloves and turmeric to make the pickling solution. Bring to a boil. Add drained vegetables to hot pickling solution. Cover and bring slowly back to a boil.
3. Drain vegetables, saving pickling solution. Pack vegetables into hot clean pint or quart jars, leaving 1/2-inch headspace.
4. Pour boiling hot pickling solution over vegetables, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
5. Cap jars with pretreated lids. Adjust lids.
6. **Process in a boiling water canner: 5 minutes for pints, 10 minutes for quarts.**

**Yield:** 10 pints

*Adjust time for elevation; see map on page 13.

## Zucchini bread-and-butter pickles

Follow the recipe on page 20 for bread-and-butter pickle slices, substituting slender (1 to 1 1/2 inches in diameter) zucchini or yellow squash for cucumbers.

# FRUIT PICKLE RECIPES

## Spiced apple rings

**12 lbs. firm tart apples (maximum diameter 2 1/2 inches)**

**12 cups sugar**

**6 cups water**

**1 1/4 cups white vinegar (5% acetic acid)**

**3 tbsp. whole cloves**

**3/4 cup red hot cinnamon candies or 8 cinnamon sticks**

**1 tsp. red food coloring (optional)**

1. Wash apples. To prevent discoloration, peel and slice one apple at a time. Immediately cut crosswise into 1/2-inch slices, remove core area with a melon baller and immerse in **ascorbic acid solution**.
2. To make flavored syrup, combine sugar water, vinegar, cloves, cinnamon candies, or cinnamon sticks and food coloring in a 6-qt saucepan. Stir, heat to boil, and simmer 3 minutes.
3. Drain apples, add to hot syrup, and cook 5 minutes.
4. Fill hot pint or half-pint jars (preferably wide-mouth) with apple rings and hot flavored syrup, leaving 1/2-inch head-space. Remove air bubble. Wipe jar rims and adjust lids.
5. **Process in a boiling water canner 10 minutes for half-pints or pints.***

**Yield:** About 8 to 9 pints

## Cantaloupe pickles

**5 lbs. of 1-inch cantaloupe cubes (about 2 medium under-ripe* cantaloupe)**

**1 tsp. crushed red pepper flakes**

**2 one-inch cinnamon sticks**

**2 tsp. ground cloves**

**1 tsp. ground ginger**

**4 1/2 cups cider vinegar (5% acetic acid)**

**2 cups water**

**1 1/2 cups white sugar**

**1 1/2 cups packed light brown sugar**

*Select cantaloupe that are full size but almost fully green and firm to the touch in all areas including the stem area.

**Day one:**

1. Wash cantaloupe and cut into halves; remove seeds. Cut into 1-inch slices and peel. Cut strips of flesh into 1-inch cubes. Weight out 5 pounds of pieces and place in large glass bowl.
2. Place red pepper flakes, cinnamon sticks, cloves and ginger in a spice bag and tie the ends firmly. Combine vinegar and water in a 4-quart stockpot. Bring to a boil, then turn heat off. Add spice bag to the vinegar-water mixture, and let steep for 5 minutes, stirring occasionally.
3. Pour hot vinegar solution and spice bag over melon pieces in the bowl. Cover with a food-grade plastic lid or wrap and let stand overnight in the refrigerator (about 18 hours).

**Day two**

4. Wash and rinse pint canning jars; keep hot until ready to use. Prepare lids according to manufacturer's directions.
5. Carefully pour off vinegar solution into a large 8- to 10-quart saucepan and bring to a boil. Add sugar; stir to dissolve. Add cantaloupe and bring back to a boil. Lower heat to simmer until cantaloupe pieces turn translucent; about 1 to 1 1/4 hours.
6. Remove cantaloupe pieces into a medium-sized stockpot, cover and set aside. Bring remaining liquid to a boil and boil an additional 5 minutes. Return cantaloupe to the liquid syrup, and bring back to a boil.
7. With a slotted spoon, fill hot cantaloupe pieces into clean, hot pint jars, leaving 1-inch headspace. Cover with boiling hot syrup, leaving 1/2-inch headspace. Remove air bubbles. Wipe jar rims and adjust lids.

**Process in a boiling water canner 15 minutes for pints.***

**Yield:** 4 pint jars

*Adjust time for elevation; see map on page 13.

## Cantaloupe pickles, no sugar added

**6 lbs. of one-inch cantaloupe cubes (about 3 medium under-ripe* cantaloupe)**

**1 tsp. crushed red pepper flakes**

**2 one-inch cinnamon sticks**

**2 tsp. ground cloves**

**1 tsp. ground ginger**

**4 1/2 cups cider vinegar (5% acetic acid)**

**2 cups water**

**3 cups Splenda®**

*Select cantaloupe that are full size but almost fully green and firm to the touch in all areas including the stem area.

**Day one:**

1. Wash cantaloupe and cut into halves; remove seeds. Cut into 1-inch slices and peel. Cut strips of flesh into 1-inch cubes. Weigh out 6 pounds of pieces and place in large glass bowl.
2. Place red pepper flakes, cinnamon sticks, cloves and ginger in a spice bag and tie the ends firmly. Combine vinegar and water in a 4-quart stockpot. Bring to a boil, then turn heat off. Add spice bag to the vinegar-water mixture, and let steep for 5 minutes, stirring occasionally.
3. Pour hot vinegar solution and spice bag over melon pieces in the bowl. Cover with a food-grade plastic lid or wrap and let stand overnight in the refrigerator (about 18 hours).

**Day two**

4. Wash and rinse pint canning jars; keep hot until ready to use. Prepare lids according to manufacturer's directions.
5. Carefully pour off vinegar solution into a large 8- to 10-quart saucepan and bring to a boil. Add Splenda®; stir to dissolve. Add cantaloupe and bring back to a boil. Lower heat to simmer until cantaloupe pieces turn translucent; about 1 to 1 1/4 hours.
6. Remove cantaloupe pieces into a medium-sized stockpot, cover and set aside. Bring remaining liquid to a boil and boil an additional 5 minutes. Return cantaloupe to the liquid syrup, and bring back to a boil.
7. With a slotted spoon, fill hot cantaloupe pieces into clean, hot pint jars, leaving 1-inch headspace. Cover with boiling hot syrup, leaving 1/2-inch headspace. Remove air bubbles. Wipe jar rims and adjust lids.

**Process in a boiling water canner 15 minutes for pints.***

**Yield:** 4 pint jars

## Spiced crabapples

**5 lbs. crabapples**

**4 1/2 cups apple cider vinegar (5% acetic acid)**

**3 3/4 cups water**

**7 1/2 cups sugar**

**4 tsp. whole cloves**

**4 sticks cinnamon**

**6 1/2-inch cubes of fresh ginger root**

1. Remove blossom petals and wash apples, but leave stems attached. Puncture the skin of each apple four times with an ice pick or toothpick.
2. Mix vinegar, water, and sugar and bring to a boil. Add spices tied in a spice bag or cheesecloth. Using a blancher basket or sieve, immerse 1/3 of the apples at a time in the boiling vinegar/syrup solution for 2 minutes.
3. Place cooked apples and spice bag in a clean 1- or 2-gallon crock and add hot syrup. Cover and let stand overnight.
4. Remove spice bag, drain syrup into a large saucepan, and reheat to boiling.
5. Fill pint jars with apples and hot syrup, leaving 1/2-inch headspace. Remove air bubbles and wipe jar rims. Adjust lids.
6. **Process in a boiling water canner 20 minutes for pints.***

**Yield:** About 9 pints

## Watermelon rind pickles

**3 quarts watermelon rind (about 6 lbs.)**

**3/4 cup salt**

**3 quarts water**

**2 quarts ice cubes (about 2 trays)**

**Syrup:**

**9 cups sugar**

**3 cups white vinegar (5% acetic acid)**

**3 cups water**

**1 tbsp. whole cloves**

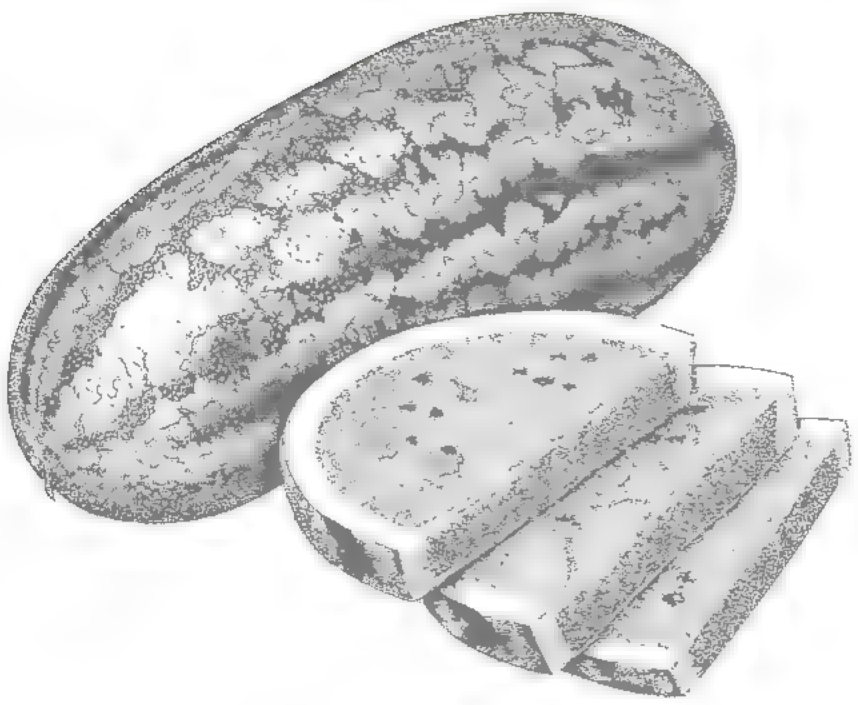
**6 cinnamon sticks, 1-inch pieces**

**1 lemon, thinly sliced, with seeds removed**

1. Wash and peel watermelon rind, and remove all the pink flesh. Cut rind into 1/2-inch by 2-inch strips or fancy shapes. Mix 3/4 cup salt and 3 quarts water. Add watermelon rind and ice cubes. Let stand 3 to 4 hours. Drain, rinse in cold water, and cook until tender when pierced with a fork, about 10 minutes. Do not overcook. Drain fruit into a large bowl, discarding liquid.
2. Tie cloves and cinnamon sticks in a clean cheesecloth bag. Mix sugar, vinegar and water and add spice bag to make syrup. Boil 5 minutes and pour over the watermelon rind. Add lemon slices. Let stand overnight in the refrigerator.
3. Heat watermelon rind in syrup to boiling, and cook slowly 1 hour. Remove spice bag, saving cinnamon sticks.
4. Pack hot rind loosely into clean, hot pint jars. To each jar, add 1 stick of cinnamon from spice bag. Cover with boiling hot syrup, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
5. Cap jars with pretreated lids. Adjust lids.
6. **Process in a boiling water canner: 10 minutes for pints.***

**Yield:** 4 to 5 pints

*Adjust time for elevation; see map on page 13.



## Pear pickles

**2 quarts (8 cups) sugar**

**1 quart white vinegar (5% acetic acid)**

**1 pint (2 cups) water**

**8 cinnamon sticks (2-inch pieces)**

**2 tbsp. whole cloves**

**2 tbsp. whole allspice**

**8 lbs. (4-5 quarts) Seckel pears or other pickling pear**

1. Combine sugar, vinegar, water and cinnamon sticks; add cloves and allspice that are tied in a clean, thin, white cloth. Bring mixture to a boil and simmer, covered, about 30 minutes.
2. Wash pears, remove skins, and all of blossom end; the stems may be left on if desired. If pears are large, halve or quarter. To prevent peeled pears from darkening during preparation, immediately after peeling, put them into a cold solution containing 1/2 teaspoon ascorbic acid per 2 quarts water. Drain pears just before using.
3. Add drained pears to the hot syrup, bring to a boil, lower heat and continue simmering for another 20 to 25 minutes.
4. Pack hot pears into hot pint jars; add one 2-inch piece cinnamon stick per jar. Cover pears with boiling syrup, leaving 1/2-inch headspace and making sure pears are covered by the syrup.
5. Remove air bubbles. Wipe jar rims and adjust lids.
6. **Process in a boiling water canner 20 minutes for pints.***

**Yield:** About 7 or 8 pint jars

# RELISH RECIPES

## Sweet apple relish

**4 lbs. apples, peeled, cored and sliced thin**

**1 1/4 cups distilled white vinegar (5% acetic acid)**

**1 cup sugar**

**1/2 cup light corn syrup**

**2/3 cup water**

**1 1/2 tsp. whole cloves**

**2 sticks cinnamon (3-inch pieces), broken up**

**1 tsp. whole allspice**

1. Wash apples, peel, core and slice thin. Immerse cut apples in a solution of 1/2 teaspoon ascorbic acid and 2 quarts of water to prevent browning.
2. Combine vinegar, sugar, corn syrup, water, cloves, cinnamon and allspice; bring to a boil. Drain apples and add to syrup. Simmer 3 minutes, stirring occasionally. Bring to a boil.
3. Pack hot apple slices into hot pint jars, leaving 1/2-inch headspace. Fill jars with boiling hot syrup, leaving 1/2-inch headspace, making sure apples are completely covered.
4. Remove air bubbles. Wipe jar rims and adjust lids.
5. **Process in a boiling water canner 10 minutes for pints.***

**Yield:** About 4 pint jars

*Adjust time for elevation; see map on page 13.

## Fall garden relish (Chowchow)

**2 cups of each of the following (16 cups total):**

**cabbage, cored and chopped**

**carrots, peeled and sliced**

**cucumbers, sliced**

**green beans, cut**

**green tomatoes, chopped**

**lima beans**

**onions, peeled and sliced**

**sweet peppers, seeded, cored and chopped**

**1 1/2 cups canning and pickling salt**

**2 quarts water**

### Pickling solution:

**2 tbsp. celery seed**

**4 tbsp. mustard seed**

**4 cups white vinegar (5% acetic acid)**

**2 cups water**

**4 cups sugar**

**4 tsp. turmeric**

1. Wash and prepare vegetables, remove blossom ends from cucumbers. Soak cabbage, cucumbers, onions, peppers and tomatoes overnight in the refrigerator in a brine of 1 1/2 cups salt to 2 quarts water. Drain.
2. Cook lima beans, green beans and carrots until tender. Drain.

3. Mix soaked and cooked vegetables with remaining ingredients in a large kettle and boil 10 minutes.
4. Pack hot into clean, hot pint jars, leaving 1/2-inch headspace. Remove air bubbles with a rubber spatula. Wipe jar rims clean with a damp cloth.
5. Cap jars with pretreated lids. Adjust lids.
6. **Process in a boiling water canner: 10 minutes for pints.**

**Yield:** 6 to 8 pints

## Corn relish

**10 cups fresh whole-kernel corn (16 to 20 medium ears), *or* six 10-oz. packages frozen corn**

**2 1/2 cups sweet red peppers, seeded, cored and diced**

**2 1/2 cups sweet green peppers, seeded, cored and diced**

**2 1/2 cups celery, chopped**

**1 1/4 cups onion, peeled and diced**

**1 3/4 cups sugar**

**5 cups vinegar (5% acetic acid)**

**2 1/2 tbsp. canning and pickling salt**

**2 1/2 tsp. celery seed**

**2 1/2 tbsp. dry mustard**

**1 1/4 tsp. turmeric**

1. Boil ears of corn 5 minutes. Dip in cold water, drain, and cut whole kernels from cob. **Or** use six 10-ounce packages of frozen corn and thaw before using.
2. Combine peppers, celery, onions, sugar, vinegar, salt, and celery seeds in a saucepan. Bring to a boil, and simmer 5 minutes. Mix mustard and turmeric in 1/2 cup of the simmered mixture. Add this mixture and the fresh (or frozen and thawed) corn to the hot mixture. Return to boil and simmer 5 more minutes. If desired, thicken mixture with a paste of 1/4 cup flour blended in 1/4 cup water, and stir frequently. **Caution: Do not thicken more than stated in this recipe or an unsafe product may result.**
3. Fill clean, hot pint jars with hot corn mixture, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
4. Cap jars with pretreated lids. Adjust lids.
5. **Process in a boiling water canner: 15 minutes for pints.**

**Yield:** 9 pints

# RELISH RECIPES

## Green tomato relish

**10 lbs. small, hard green tomatoes, chopped**

**1 1/2 lbs. sweet red peppers, seeded, cored and chopped**

**1 1/2 lbs. green peppers, seeded, cored and chopped**

**2 lbs. onions, peeled and chopped**

**1/2 cup canning and pickling salt**

**4 cups water**

**4 cups sugar**

**4 cups vinegar (5% acetic acid)**

**1/3 cup prepared mustard**

**2 tbsp. cornstarch**

1. Wash and coarsely grate or finely chop tomatoes, peppers and onions.
2. Dissolve 1/2 cup salt in 4 cups water, and pour over vegetables in a large kettle. Heat to a boil, and simmer 5 minutes. Drain vegetables, discarding salt solution.
3. Mix sugar, vinegar, mustard and cornstarch in a large kettle. Add drained vegetables. Heat to a boil, and simmer 5 minutes.
4. Fill clean, hot pint jars with hot relish, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
5. Cap jars with pretreated lids. Adjust lids.
6. **Process in a boiling water canner: 5 minutes for pints.**

**Yield:** 8 pints

## Pear relish

**2 gallons pears**

**6 large onions**

**6 sweet green peppers**

**6 sweet red peppers**

**1 bunch celery**

**3 cups sugar**

**1 tablespoon allspice**

**1 tablespoon salt**

**5 cups vinegar (5% acetic acid)**

Wash the pears, onions, peppers and celery in cold water. Peel and core the pears. Remove stems and seeds from the peppers. Clean the celery; peel the onions. Put pears and vegetables through a food chopper. Stir the sugar, allspice, salt and vinegar into the chopped mixture and let stand, covered, overnight in the refrigerator.

Heat the relish mixture to boiling; simmer 5 minutes. Pack hot relish into hot pint jars, leaving 1/2-inch headspace. Remove air bubbles. Wipe jar rims and adjust lids. **Process in a boiling water canner 20 minutes for pints.***

**Yield:** About 10 pint jars

*Adjust time for elevation; see map on page 13.

# RELISH RECIPES

## Piccalilli

**6 cups green tomatoes, chopped**

**1 1/2 cups sweet red peppers, seeded, cored and chopped**

**1 1/2 cups green peppers, seeded, cored and chopped**

**2 1/4 cups onions, peeled and chopped**

**7 1/2 cups cabbage, cored and chopped**

**1/2 cup canning and pickling salt**

**3 tbsp. whole mixed pickling spice**

**4 1/2 cups vinegar (5% acetic acid)**

**3 cups brown sugar**

1. Wash, chop and combine vegetables with 1/2 cup salt. Cover with hot water, and let stand in the refrigerator 12 hours or overnight. Drain vegetables, and press in a clean white cloth to remove all liquid.
2. Combine vinegar and brown sugar in a large saucepan. Add spices tied loosely in a clean cheesecloth bag, and heat to a boil. Add drained vegetables, and boil gently 30 minutes or until the volume of the mixture is reduced by one-half. Remove spice bag.
3. Fill clean, hot pint jars with hot vegetable mixture, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
4. Cap jars with pretreated lids. Adjust lids.
5. **Process in a boiling water canner: 5 minutes for pints.**

**Yield:** 4 to 5 pints

## Sweet pickle relish

**4 cups cucumbers, chopped (4 medium)**

**2 cups onions, peeled and chopped**

**1 cup sweet red pepper, seeded, cored and chopped**

**1 cup green pepper, seeded, cored and chopped**

**1/4 cup salt**

**3 1/2 cups sugar**

**2 cups cider vinegar (5% acetic acid)**

**1 tbsp. celery seed**

**1 tbsp. mustard seed**

1. Wash vegetables and trim 1/16 inch from blossom ends of cucumbers. Chop and combine vegetables with 1/4 cup salt. Cover with ice cold water and let stand 2 hours. Drain vegetables and press in a clean white cloth to remove all liquid.
2. Combine sugar, vinegar and spices in a large kettle, and heat to a boil. Add drained vegetables and simmer 10 minutes.
3. Fill clean, hot pint jars with hot mixture, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
4. Cap jars with pretreated lids. Adjust lids.
5. **Process in a boiling water canner: 10 minutes for pints.**

**Yield:** 4 to 5 pints

# RELISH RECIPES

## Pickled pepper-onion relish

**6 cups finely chopped onions**

**3 cups finely chopped sweet red peppers**

**3 cups finely chopped green peppers**

**1 1/2 cups sugar**

**6 cups vinegar (5% acetic acid)**

**2 tbsp. canning or pickling salt**

Wash and chop vegetables. Combine all ingredients and boil gently until mixture thickens and volume is reduced by one-half (about 30 minutes). Fill sterile jars, with hot relish, leaving 1/2-inch headspace, and seal tightly. Store in refrigerator and use within one month.

**Caution: If extended storage is desired, this product must be processed in a boiling water canner 5 minutes for pints or half-pints.***

**Yield:** 9 half-pints

## Oscar relish

**8 cups chopped fresh peaches (12 large)**

**8 cups chopped ripe tomatoes (12 large)**

**2 cups diced green sweet peppers**

**1 tbsp. red hot pepper, ground**

**2 cups ground onions (6)**

**4 cups light brown sugar (firmly packed)**

**2 cups cider vinegar (5% acetic acid)**

**1 1/2 tsp. canning or pickling salt**

**4 tbsp. pickling spice, tied in cheesecloth bag**

Peel and pit peaches. Chop into small pieces. Peel and chop tomatoes into 1/2-inch pieces. Remove stem and seed from peppers and dice into 1/2-inch pieces. Peel onions and grind in food chopper. Grind red hot peppers.

Combine all ingredients in 10-quart saucepan. Cook and stir about 1 1/2 to 2 hours, until it reaches desired thickness.

Pack in hot pint jars, leaving 1/2-inch headspace. Remove air bubbles. Wipe jar rims and adjust lids.

**Process in a boiling water canner 10 minutes for pints.***

**Variation:** Use two small hot peppers if you like a hotter relish. For milder relish, substitute Tabasco to taste (1/2 to 1 teaspoon) for the peppers.

**Yield:** About 6 pint jars

## Rummage relish

**2 quarts cored, chopped green tomatoes (16 medium)**

**1 quart peeled, cored, chopped red ripe tomatoes (6 large)**

**1 quart chopped cabbage (1 small head)**

**3 cups chopped onions**

**2 cups chopped celery**

**1 cup chopped sweet green peppers (2 medium)**

**1 cup chopped cucumbers**

**1 cup chopped sweet red peppers (2 medium)**

**1/2 cup canning or pickling salt**

**4 cups brown sugar**

**2 cloves garlic, minced**

**1 tbsp. celery seed**

**1 tbsp. ground cinnamon**

**1 tbsp. mustard seed**

**1 tsp. ground ginger**

**1/2 tsp. ground cloves**

**2 quarts vinegar (5% acetic acid)**

Combine vegetables; add salt and mix thoroughly. Let stand 12 to 18 hours in refrigerator; drain thoroughly. Add sugar, spices and garlic to vinegar; simmer 10 minutes. Add vegetables; simmer 30 minutes. Bring to a boil.

Pack hot relish into hot pint jars, leaving 1/2-inch headspace. Remove air bubbles. Wipe jar rims and adjust lids.

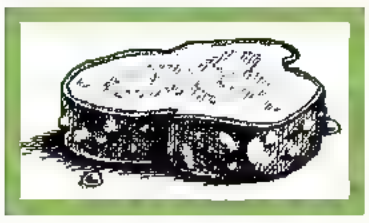
**Process in a boiling water canner 15 minutes for pints.***

**Variation:** For Curry relish, add 2 cups raisins and 1 1/2 teaspoons curry powder when vegetables are added to pickling solution. Makes about 9 pints.

**Yield:** About 8 pint jars

*Adjust time for elevation; see map on page 13.

# REFRIGERATOR PICKLE RECIPES



**Many fresh pack pickles can be stored in the refrigerator for short periods of time (several weeks) without heat processing. However, quality will deteriorate rapidly, and these products may become unsafe if stored for extended periods.**

**For pickles that can be stored in the refrigerator, follow the directions in this bulletin for refrigerator pickles. The relatively strong vinegar/sugar solution will maintain the quality of cucumbers, cauliflower, peppers or other vegetables that you may choose to pickle for up to 2 weeks in the refrigerator.**

**Wash standard home canning jars in hot, soapy water and rinse well. Sterilize jars by boiling for 10 minutes. Keep them in hot water until you are ready to fill them, to prevent them from breaking when filled with hot pickling solution.**

**Note:**

**g. = gram**
**lb. = pound**
**oz. = ounce**
**tbsp. = tablespoon**
**tsp. = teaspoon**
**1 quart = 2 pints = 4 cups**

## Cucumber pickles with onions or vegetable medley

**8 cups cucumbers, thinly sliced**

**1 cup onion, peeled and sliced (2 medium onions), *or* in place of onion, an equal amount of other vegetables such as cauliflower, peppers or carrots as desired**

### Pickling solution:

**4 cups vinegar (5% acetic acid)**

**2 cups sugar**

**1/3 cup canning and pickling salt**

**1 1/2 tsp. each of celery seed, mustard seed and turmeric**

1. Mix pickling solution ingredients together until sugar is dissolved. This mixture does not have to be heated, but heating will more rapidly dissolve the sugar and pickle the vegetables.
2. Wash and prepare vegetables, trim blossom ends from cucumbers and discard.
3. Fill hot **sterilized**** pint or quart jars with thinly sliced cucumbers and other vegetables. Cover vegetables with hot pickling solution, and cap jars with clean lids. Label and date, and store in the refrigerator at 40° F or colder for up to 2 weeks. **This pickle is not heat processed and must be kept refrigerated.**

**Yield:** 2 quarts

## Pickled horseradish sauce

**2 cups freshly grated horseradish (3/4 lb.)**

**1 cup white vinegar (5% acetic acid)**

**1/2 tsp. canning and pickling salt**

**1/4 tsp. ascorbic acid, powdered* (if desired, to prevent browning)**

1. Wash horseradish roots, and peel off brown outer skin. The pungency of fresh horseradish fades within 1 to 2 months, even when refrigerated. So make only a small batch at a time.
2. Grate peeled roots in a food processor, or cut into small cubes and put through a food grinder.
3. Combine grated horseradish with vinegar, salt, and ascorbic acid (if desired). Fill **sterilized**** half-pint jars, leaving 1/4-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rims with a clean, damp cloth.
4. Cover jars tightly with clean lids. Label and date, and store in the refrigerator at 40° F or colder for up to 2 months.

   **This pickle is not heat processed and must be kept refrigerated.**

**Yield:** 2 half-pints

* Powdered ascorbic acid (vitamin C) is available at some pharmacies or cooking supply stores.

**See page 12 for instructions on sterilizing jars.

*Adjust time for elevation; see map on page 13.

# FREEZER PICKLE RECIPES

**Cucumber and other vegetable slices packed in vinegar and sugar will remain crisp when stored in the freezer. Pack freezer pickles in rigid plastic containers, freezer bags or wide-mouth canning jars. Label, date and store in the freezer at 0° F or colder for up to 6 months.**

**Freezer pickles taste best chilled, so serve them right from the refrigerator once thawed. Keep thawed pickles refrigerated and use within 2 weeks.**

**Note:**

**g. = gram lb. = pound**
**oz. = ounce**
**tbsp. = tablespoon**
**tsp. = teaspoon**
**1 quart = 2 pints = 4 cups**

## Cucumber dill slices

**8 cups pickling cucumbers, thinly sliced (2 1/2 lbs.)**

**1 cup sweet red pepper, seeded, cored and chopped**

### Pickling solution:

**3 tbsp. canning and pickling salt**

**4 garlic cloves, peeled and minced**

**1/3 cup fresh dill weed, minced**

**1 tsp. dill seed**

**1 1/2 cups sugar**

**1 1/2 cups cider vinegar (5% acetic acid)**

1. Gently wash cucumbers. Trim 1/16 inch from the blossom end and discard. Thinly slice cucumbers and measure out 8 cups. In a large bowl, toss the cucumbers with the salt. Let the cucumbers stand 2 hours, and then drain.
2. In another bowl, stir together the remaining ingredients. Pour the mixture over the drained cucumbers, and stir well. Refrigerate the mixture for 8 to 10 hours.
3. Pack the cucumber slices and pickling solution in freezer bags or rigid containers, leaving 1-inch headspace. Label and date packages, and freeze at 0° F or colder for up to 6 months.
4. Thaw pickles for about 8 hours in the refrigerator, and serve chilled. **Thawed pickles must be kept refrigerated; use within 2 weeks.**

**Yield:** 4 pints

# FREEZER PICKLE RECIPES

## Cucumber pickles with carrots

**8 cup pickling cucumbers, thinly sliced (about 2 1/2 lbs.)**

**3 tbsp. canning and pickling salt**

### Syrup:

**2 medium carrots, peeled and grated (about 1 cup, firmly packed)**

**1 1/2 cups sugar**

**1 1/2 cups cider vinegar (5% acetic acid)**

**1 tbsp. dill weed, chopped**

1. Gently wash cucumbers. Trim 1/16 inch from the blossom end and discard. Thinly slice cucumbers and measure out 8 cups. In a large bowl, toss the cucumbers with the salt. Let the cucumbers stand 2 hours, and then drain.
2. In another bowl, stir together the remaining ingredients. Pour the mixture over the cucumbers, and stir well. Refrigerate the mixture for 8 to 10 hours.
3. Pack the cucumbers and syrup in freezer bags or rigid containers, leaving 1-inch headspace. Label and date packages, and freeze at 0° F or colder for up to 6 months.
4. Thaw pickles for about 8 hours in the refrigerator before serving. Freezer pickles taste best chilled. **Thawed pickles must be kept refrigerated; use within 2 weeks.**

**Yield:** 4 pints

## Lime-mint cucumber pickles

**8 cups pickling cucumbers, thinly sliced (about 2 1/2 lbs.)**

**3 tbsp. canning and pickling salt**

### Pickling solution:

**1 small sweet red pepper, seeded, cored and chopped**

**1/4 cup mint leaves, minced**

**1/2 cup onion, peeled and sliced (1 medium onion)**

**2 garlic cloves, peeled and minced**

**Grated zest of 1 lime**

**1 1/2 cups sugar**

**1 1/2 cups distilled white vinegar (5% acetic acid)**

1. Gently wash cucumbers. Trim 1/16 inch from the blossom end and discard. Thinly slice cucumbers and measure out 8 cups. In a large bowl, toss the cucumbers with the salt. Let the cucumbers stand 2 hours, and then drain.
2. In another bowl, stir together the remaining ingredients. Pour the mixture over the drained cucumbers, and stir well. Refrigerate the mixture for 8 to 10 hours.
3. Pack the cucumbers and pickling solution in freezer bags or rigid containers, leaving 1-inch headspace. Label and date packages, and freeze at 0° F or colder for up to 6 months.

*Adjust time for elevation; see map on page 13.

4. Thaw pickles for about 8 hours in the refrigerator, and serve chilled. **Thawed pickles must be kept refrigerated; use within 2 weeks.**

**Yield:** 4 pints

## Pickled cabbage

**2 lbs. green cabbage, cored and shredded**

**1 cup green pepper, seeded, cored and shredded**

**1 cup onion, peeled and shredded**

**1 cup carrot, peeled and shredded**

**1 tbsp. canning and pickling salt**

**2 cups sugar**

**1 1/2 cups cider vinegar (5% acetic acid)**

1. Wash and prepare vegetables. In a bowl, toss the shredded vegetables with the salt. Let the mixture stand 2 hours. Drain the vegetables, pressing out excess liquid.
2. Combine the sugar and vinegar, stirring to dissolve. Pour the syrup over the drained vegetables, and mix well.
3. Pack the vegetables and syrup in freezer bags or rigid containers, leaving 1-inch headspace. Label and date packages, and freeze at 0° F or colder for up to 6 months.
4. Thaw cabbage for about 8 hours in the refrigerator, and serve chilled. **Thawed pickles must be kept refrigerated; use within 2 weeks.**

**Yield:** 2 quarts

*Adjust time for elevation; see map on page 13.

# FAMILY FAVORITE PICKLE RECIPES

**Many families enjoy a tradition of pickled eggs or pickled meats. For others, wild game or grape leaves are traditional fare. Follow the tested recipes on pages 57-58 to safely prepare these pickled items.**

**Eggs can be pickled and then stored in the refrigerator for up to 2 weeks.**

**Venison, elk or other wild game can be cooked and then stored in a pickling solution in the refrigerator for up to 2 weeks. Tongue and other variety meats can also be successfully prepared in this way.**

**If you like to make *dolmades* — stuffed grape leaves — you may be glad to know that you can easily preserve your own leaves for this purpose. Use tender, light-green leaves from a variety of grapevines.**

**Note:**

**g. = gram**
**lb. = pound**
**oz. = ounce**
**tbsp. = tablespoon**
**tsp. = teaspoon**
**1 quart = 2 pints = 4 cups**

## Pickled eggs

**16 fresh eggs**

**2 tbsp. whole allspice**

**2 tbsp. whole peppercorns**

**2 tbsp. ground ginger**

**4 cups white vinegar (5% acetic acid)**

**2 tbsp. sugar**

1. **Sterilize*** clean wide-mouth home canning jars by boiling for 10 minutes. Wash two-piece lids.
2. Cook eggs in simmering water for 15 minutes. Drain eggs and cool in cold water, then remove shells. Pack into hot, sterilized wide-mouth jars.
3. In a pot, combine vinegar, sugar and spices. Bring to a boil, reduce heat, and simmer 5 minutes. Pour hot liquid over hard-cooked eggs. Wipe jar rims with a clean, damp cloth. Cap with clean lids. Store in the refrigerator at 40° F or colder and use within 2 weeks. **Do not can.**

**Caution:** This recipe is not intended for long-term storage or storage at room temperature. **Pickled eggs must be kept refrigerated.**

**Yield:** 2 quarts

***Note:** See page 12 for instructions on sterilizing jars.

# FAMILY FAVORITE PICKLE RECIPES

## Pickled elk or venison

**2 to 3 lbs. elk or venison roast**

**1 bay leaf**

### Pickling solution:

**1 onion, peeled and thinly sliced**

**1/2 lemon, sliced**

**2 cups white vinegar (5% acetic acid)**

**1 cup sugar**

**2 tsp. whole pickling spices**

**2 tsp. canning and pickling salt**

**1/2 cup white port wine (optional)**

1. Cook meat in lightly salted water with bay leaf for several hours until tender. **Or** pressure cook at 15 pounds for 90 minutes. Remove all fatty tissue while still very warm. Cut into serving-size pieces.
2. In a glass, plastic or nonreactive metal container, arrange meat with lemon and onion slices. Tie pickling spices in a clean cheesecloth bag. Put vinegar, sugar, spice bag and salt in a saucepan and bring to a boil. Remove spice bag, and pour pickling solution over meat. Cool slightly, cover, label and date, and refrigerate at 40° F or colder for up to 2 weeks.

**Note:** This recipe is **not** intended for long-term storage, but allows for a pickled product that is stored in the refrigerator for up to 2 weeks.
**Pickled game meat must be kept refrigerated**.

**Yield:** 2 to 3 quarts

## Grape leaves

**About 30 tender, light-green grape leaves, stemmed**

**2 tsp. canning and pickling salt**

**4 cups water**

**1 cup water plus 1/4 cup bottled lemon juice**

1. Measure 2 teaspoons salt and 4 cups water into a large saucepan, and bring to a boil. Add grape leaves, and blanch them for 30 seconds. Drain.
2. Stack the leaves in small piles of about 6 each, and roll the stacks loosely from the side. Pack into a clean, hot pint home canning jar, folding the ends over if necessary.
3. In a small saucepan, bring to a boil 1 cup water and 1/4 cup lemon juice. Pour the hot liquid over the rolled leaves, leaving 1/2-inch headspace. Remove bubbles with a rubber spatula. Wipe jar rim with a clean, damp cloth.
4. Cap jar with a pretreated lid. Adjust lid.
5. **Process in a boiling water canner: 15 minutes for pints.**

**Note:** These leaves are not salty, and will not have to be rinsed before stuffing them.

**Yield:** 1 pint

*Adjust time for elevation; see map on page 13.

## Wisconsin Safe Food Preservation Series publications

*Canning Fruits Safely* (B0430)

*Canning Meat, Wild Game, Poultry and Fish Safely* (B3345)

*Canning Salsa Safely* (B3570)

*Canning Vegetables Safely* (B1159)

*Freezing Fruits and Vegetables* (B3278)

*Homemade Pickles and Relishes* (B2267)

*Make Your Own Sauerkraut* (B2087)

*Making Jams, Jellies and Fruit Preserves* (B2909)

*Tomatoes Tart and Tasty* (B2605)

*Using and Caring for a Pressure Canner* (B2593)

*Wisconsin's Wild Game: Enjoying the Harvest* (B3573)

## To start with the right ingredients, see also:

*Apple Cultivars for Wisconsin* (A2105)

*Growing Pumpkins and Other Vine Crops in Wisconsin* (A3688)

*Harvesting Vegetables from the Home Garden* (A2727)

*Home Fruit Cultivars for Northern Wisconsin* (A2488)

*Home Fruit Cultivars for Southern Wisconsin* (A2582)

*Vegetable Cultivars and Planting Guide for Wisconsin Gardens* (A1653)

These are all available from your county UW-Extension office, or Cooperative Extension Publishing (learningstore.uwex.edu).

## Web sites

*Complete Guide to Home Canning* is available online through the National Center for Home Food Preservation, (www.uga.edu/nchfp/). Refer to Agriculture Information Bulletin No. 539 (Washington, D.C.: U.S. Department of Agriculture), 2008.

If you do not have a computer, try your local library. Most libraries have a computer connected with the Internet.

# Recipe Index


**Family favorite pickles**

Eggs, pickled, 57

Elk or venison, pickled, 58

Grape leaves, 58

**Fermented pickles**

Brines for fermented pickles, 17

Dill pickles, 18

**Freezer pickles**

Cabbage, pickled, 56

Cucumber dill slices, 54

Cucumber pickles with carrots, 55

Lime-mint cucumber pickles, 55

**Fresh pack and quick process pickles**

Bread-and-butter pickle slices, 20

Dill pickles, quick process, 21

Dill pickles, reduced sodium, 22

Quick sweet pickles, 22

Sweet 4-day gherkins or chunk pickles, 24

Sweet 14-day cucumber or cauliflower pickles, 25

Sweet pickle slices, reduced-sodium, 26

Sweet pickle slices, no sugar added, 27

**Fruit pickles**

Apple rings, spiced, 41

Cantaloupe pickles, 41

Cantaloupe pickles, no sugar added, 42

Crabapples, spiced, 43

Pear pickles, 45

Watermelon rind pickles, 44

**Refrigerator pickles**

Cucumber pickles with onions or vegetable medley, 52

Horseradish sauce, pickled, 53

**Relishes**

Apple relish, sweet, 46

Corn relish, 47

Fall garden relish (Chowchow), 46

Green tomato relish, 48

Oscar relish, 50

Pear relish, 48

Pepper-onion relish, pickled, 50

Piccalilli, 49

Pickle relish, sweet, 49

Rummage relish, 51

**Vegetable pickles**

Artichoke pickles, 28

Asparagus, pickled, 28

Baby carrots, pickled, 32

Beans, dilly, 29

Beet pickles, 30

Beets, pickled, no sugar added, 31

Cauliflower or Brussels sprouts sweet pickles, 32

Green tomato dill pickles, kosher-style, 37

Green tomato sweet pickles, 37

Green tomatoes, spiced, 38

Green tomatoes, sweet, pickled, 38

Horseradish sauce, pickled, 33

Jalapeño rings, pickled, 36

Mushrooms, marinated, whole, 33

Onions, pickled, 34

Peppers, marinated, 34

Peppers, pickled, 35

Three-bean salad, pickled, 29

Vegetable mix hot pickles, 39

Vegetable mix sweet pickles, 39

Zucchini bread-and-butter pickles, 40

**Other**

Headspace, 14

Salt, weigh for best accuracy, 7

Sterilizing jars, 12

## Acknowledgments

Freezer pickle recipes reprinted with permission from *The Joy of Pickling* by Linda Ziedrich (Boston, Mass.: The Harvard Common Press), 1998. Titles of recipes appear in the book as Freezer Dill Slices, Freezer Pickle with Carrots, Lime-Mint Freezer Pickle, Freezer Pickled Cabbage. To order, call: (888) 657-3755

Recipe for pickled eggs adapted with permission from *So Easy to Preserve,* 4th ed. Bulletin 989, by Elizabeth L. Andress and Judy A. Harrison (Athens, Ga.: Cooperative Extension Service, The University of Georgia), 2006.

Copyright © 2008 by the Board of Regents of the University of Wisconsin System doingbusiness as the division of Cooperative Extension of the University of Wisconsin-Extension. All rights reserved. Send copyright inquiries to: Cooperative Extension Publishing, 432 N. Lake St., Rm. 227, Madison, WI 53706.

**Author:** Barbara H. Ingham, food science specialist, Department of Food Science, University of Wisconsin-Madison and UW-Extension.

**University of Wisconsin-Extension, Cooperative Extension,** in cooperation with the U.S. Department of Agriculture and Wisconsin counties, publishes this information to further the purpose of the May 8 and June 30, 1914 Acts of Congress. An EEO/AA employer, the University of Wisconsin-Extension, Cooperative Extension provides equal opportunities in employment and programming, including Title IX and Americans with Disabilities (ADA) requirements. If you need this information in an alternative format, contact Cooperative Extension Publishing or Equal Opportunity and Diversity Programs, University of Wisconsin-Extension, 501 Extension Building, 432 N. Lake Street, Madison, WI 53706, diversity@uwex.edu, phone: (608) 262-0277, fax: (608) 262-8404, TTY: 711 Wisconsin Relay.

**This publication is available** in English from your Wisconsin county Extension office (www.uwex.edu/ces/cty) or from Cooperative Extension Publishing. To order, call toll-free: 1-877-947-7827 (WIS-PUBS) or visit our web site: learningstore.uwex.edu.

UW Extension

**Homemade Pickles & Relishes** (B2267) R-05-2008